

SPECIAL STAFF REPORT: New kit releases for 1985

ICD 08285

FineScale MODELER[®]

MAY/JUNE 1985 / \$2.50

Realistic warship
railings and rigging

Building your first
epoxy-resin aircraft kit

Super techniques
for using super glues

Modeling the
Travel Air
Mystery Ship
in 1/48 scale

FSM SHOWCASE SPECIAL FEATURE:
Paul Budzik's 1/12 scale McLaren M23



74820 08285

1/35 SCALE ARMOR SERIES

TIGER I SR-3502 \$9.98

The TIGER I was the most powerful tank in the world when it was introduced. It weighed over 55 tons. The TIGER was first used in Russia in 1942. Early models sported a 88mm gun and with their heavily armored front were easily the most powerful tank of its period. TIGER's underwent many changes over the years, mainly to cut construction time and costs. Used as a defensive tank, it presented numerous problems to Allied Troops.



CHIEFTAIN SR-3504 \$9.98

The CHIEFTAIN was developed by the British as a replacement for the Centurion 105. Weighing about 47 tons with a 120mm tank gun mounted and being only 2.75m in height, the CHIEFTAIN became a formidable opponent, rivaled only by the Russian T-10. Possessing speed and maneuverability plus great attacking strength, the CHIEFTAIN has shown itself as a great fighting machine, especially in night combat.



LEOPARD I SR-3505 \$9.98

The LEOPARD I A3 utilized "spaced armored technology" in the tubular turret armor thereby increasing its overall strength against anti-tank weapons. In 1973 a new welded seam turret was installed on the LEOPARD. The turret differs from the A-1/a-2 models being square and large compared to the former rounded turret. The LEOPARD is among the strongest of modern battle tanks and is a mainstay of the modern German army.



CENTURION Mk. 10 SR-3511 \$9.98

Lacking a high performance tank such as the Sherman of the U.S. the British debuted the CENTURION to answer the need for a speedy production tank with good fighting power. Initially the CENTURION was inferior to other tanks of the same class. The CENTURIONS were eventually equipped with 105mm guns and gained widespread fame. In the Middle East in 1967, CENTURIONS formed the main body of the Israeli army, easily destroying T34 and T54 tanks. Their excellent fighting capabilities are known throughout the world.



Look for NICHIMO's exciting collection of 1/35 scale armor at your local Hobby Dealers today. Each of these tanks is an accurate replica of the original. Many hours of pleasure and enjoyment can be obtained from the construction of these fine tanks....whether it is the centerpiece of a diorama, standing alone or motorized and in action.... These NICHIMO tanks offer outstanding value for your money!

Why not start you collection today? While you visit your dealer ask him about the other great tanks from NICHIMO like their KING TIGER with Porsche Turret or their Sherman. NICHIMO also makes many other great models in aircraft, ships and cars. LOOK FOR THEM AT FINE HOBBY SHOPS.

IMPORTED AND DISTRIBUTED BY:

EMPIRE PACIFIC LTD
10805 E. ARTESIA BLVD.
CERRITOS, CALIFORNIA 90701

EDITORIAL

Editor: BOB HAYDEN

Associate Editor: BURR ANGLE

Associate Editor: PAUL D. BOYER

Editorial Assistant: MARCIA STERN

Editorial Secretary: MONICA BOROWICKI

Librarian: GEORGE H. DRURY

ART

Art Director: LAWRENCE O. LUSER

Staff Artist: WELLS S. MARSHALL, III

Staff Photographer: A. L. SCHMIDT

Staff Photographer: PAUL A. ERLER

EXECUTIVE

President and Publisher: JAMES J. KING

Executive Vice President: WALTER J. MUNDSCHAU

Editorial Vice President: DAVID P. MORGAN

Executive Art Director: GEORGE A. GLOFF

SALES

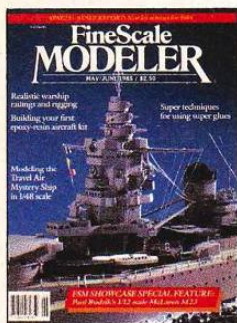
Ad Sales Manager: FREDERICK J. HAMILTON

Commercial Sales Manager: THOMAS J. D'AMICO

Creative Director: GARY W. DOLZALL

Advertising Production Manager: ART CURREN

Advertising Production Assistant: SARA BENZ



ON THE COVER

The only model ever to appear on the cover of FSM more than once (on the Winter 1982 and January/February 1984 issues), Dennis Moore's 1/400 scale Heller *Dunkerque* now graces our cover yet a third time. Dennis and his French battle cruiser are back to explain his techniques for modeling those fine railings and rigging wires, and the story begins on page 30. The dramatic photo is the work of FSM Staff Photographer Paul A. Erler.



FINESCALE MODELER (ISSN 0277-979X) is published bi-monthly (six times a year) by Kalmbach Publishing Co., 1027 N. Seventh Street, Milwaukee, WI 53233, (414) 272-2060. SUBSCRIPTION RATES: 6 issues, \$12.50; 12 issues, \$23. With foreign postage (outside the United States) 6 issues, \$15.50; 12 issues, \$29 (payable in U. S. funds only). © 1985, Kalmbach Publishing Co. Title registered as trademark. Second-class postage paid at Milwaukee, WI, and at additional offices. Printed in U.S.A. All rights reserved. This publication may not be reproduced in part or in whole without written permission from the publisher, except in the case of brief quotations used in reviews. POSTMASTER: Send address changes to FINESCALE MODELER, Kalmbach Publishing Co., 1027 N. Seventh St., Milwaukee, WI 53233. Canadian second-class postal permit 9589. Send Canadian address changes to Bowering Custom Brokers, P. O. Box 1173, Fort Erie, Ontario L2A 5N9.

FINESCALE MODELER assumes that such material as letters, club news, news releases, new-product information, etc., is contributed gratis. Feature articles and scale drawings are paid for on acceptance. Photographs accepted separately are paid for upon publication. Leaflets outlining in detail the preparation of features, photographs, and drawings are available on request from the Editorial Secretary. Unsolicited material, if not accepted, will be returned only if postage and wrappings are provided for this purpose. FINESCALE MODELER assumes no responsibility for the safe return of unsolicited material.

FineScale MODELER

VOL. 3 NO. 3 MAY/JUNE 1985

McLaren M23 (page 18)



18 FSM SHOWCASE SPECIAL FEATURE: Paul Budzik's 1/12 scale McLaren M23

A magnificent — and complex — conversion

22 Building your first epoxy-resin aircraft kit

Modeling the Leduc 022 in 1/72 scale

H. SCOTT EDWARDS

28 From toy to model

Refurbishing an old Dinky Toys 1954 Studebaker

WAYNE E. MOYER

30 Realistic warship railings and rigging

Using stretched sprue and brass wire for small-scale details

DENNIS MOORE

38 Modeling with cyanoacrylate glues

Super techniques for super glue

LLOYD S. JONES

46 22nd Virginia Battalion, Confederate States of America, Civil War, 1862

Number 6 in the AMERICAN DRESS AND DETAIL series R. J. STAFFORD

49 German armor terms and abbreviations

What's an "SdKfz," anyway?

BRUCE CULVER

54 Modeling the Travel Air Mystery ship in 1/48 scale

Extra details and a smooth paint job improve the Testor/Hawk classic

ROSCOE CREED

DEPARTMENTS

4 Update

10 Workbench Reviews

13 FSM Looks at New Products

17 From the Editor

35 FSM Clinic

63 Book Briefs

66d Videotape Briefs

66f Reader Forum

68 Tips and Techniques

73 Index to Advertisers

"HIGH QUALITY"
AVIATION PRINTS
 Send \$1.00 for catalog listing
 of photographs with brief description.
 •Refundable with first order.*

SIZES AVAILABLE
 5x7 \$5.95
 7x10 \$7.50
 10x14 \$9.50

mail to: SHERRILL STUDIO
 P.O. Box 2264
 Riverview, MI. 48192

30MM Tradition & "WILLIE"
 SCANDINAVIA EDWARD SUREN

Figures for the serious
 collector, diorapist & artist
 CATALOG \$1.00 - refundable
 • DEALER INQUIRIES INVITED •

THE MODEL SHOPPE
 323 1/2 RICHMOND ST.
 EL SEGUNDO, CA 90245

W.W.I & II POSTERS
 in color imported from England. 20" x 30" suit-
 able for framing. Sample photos. Send \$1.00 to:
Biggin Hill Publishing
 Box 786
 Freeport, NY 11520

**Styrene...
 Fast, Accurate,
 Versatile**

Use precut styrene strips and
 sheets on your next project.

**evergreen
 scale models**

Send SSAA to Dept. 136 for info
 1414-127th Pl. N.E., Suite 107
 Bellevue, Washington 98005

"I now have 20-20 sharpness" - says Pedro Pinhole
FRICKO PINHOLE LENS with COLENS

- Contains our new colens which provides:
 - a SHARPER IMAGE.
 - a SHORTER EXPOSURE TIME.
 - a BRIGHTER VIEWING SCREEN.
 - a TREMENDOUS DEPTH OF FIELD.
- For miniature photos, gives perspective of a scale
 man, photos can be taken looking up at models,
 perfect focus of foreground and background, no
 vertical line distortion, makes models look real.
- Works on manual exposure or on automatic aper-
 ture preferred cameras. Can use any 35mm film, can
 shoot indoors or outdoors, with or without flash.
- Available for 35mm SLR cameras: CANON,
 KONIKA, MINOLTA, NIKON, OLYMPUS, PEN-
 TAX K, PENTAX S, YASHICA, CONTAX, MAMIYA.
- \$34.95 each

Send SASE for information.
 Order direct or your dealer can get it from Walthers.
 A. J. Fricko Co.,
 P.O. Box 43276, Cincinnati, OH 45243-0276

**THE
 SpareTime
 SHOP**

We Specialize In...

- Armor • Aircraft
- Automobiles • Ships
- Trucks • Space
- Sci-Fi Kits
- Adventure Games
- Paints & Tools

ALL SCALES • ALL MAKES
 DOMESTIC AND IMPORTED

THERE ARE OVER 4,000 PLASTIC MODELS ON THE MARKET TODAY. WE
 HAVE ALMOST EVERY ONE THAT IS NOW AVAILABLE. SEE FOR YOUR-
 SELF. DROP BY OR SEND: **\$3.00** WE ARE IN OUR 11th YEAR

WE PAY
 THE WAY
 IN THE
 U.S.A.

for our new catalog.
 Phone 617-481-5786.
 Open 7 days.

The Spare Time Shop
 222 E. Main St., Route 20, Marlboro, Mass. 01752

FSM UPDATE

FSM invites manufacturers and publish-
 ers to submit news releases, photos,
 product samples, and new catalogs. A de-
 scription of our new-product announce-
 ment and review policies is available from
 FSM Update, FINESCALE MODELER, 1027
 North Seventh Street, Milwaukee, WI 53233.

Kit releases. Americal/Gryphon, 4373
 Varsity Lane, Houston, TX 77004, is offer-
 ing a 1/72 Kawasaki Ki-32 Mary made by
 Merlin Models, \$5.25 plus \$1.27 postage.

Heller, 24, rue de Paradis, 75010 Paris,
 France, has released two new Bobcat kits:
 No. 3003, 1/72 C-160 Super Transall, and
 3514, 1/24 Renault Sports Team.

Available from Northeastern Scale Mod-
 els, Inc., 99 Cross Street, P. O. Box 425, Me-
 thuen, MA 01844, is a half-hull plaque kit of
 the 1851 racing schooner yacht *America*.
 The plaque measures 22" x 5 1/4".

Two 1/72 Italeri kits available from the
 Testor Corporation, 620 Buckbee Street,
 Rockford, IL 61108-4891, are No. 694, Con-
 vair B-58 Hustler, and 695, Lockheed Her-
 cules "Fat Albert." Testor also has added a
 Fujimi 1/48 T-38A White Mosquito, kit No.
 337, to its line.

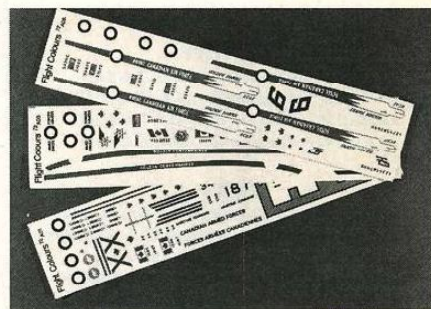
Decals. Aeolus Publishing Limited, P. O.
 Box 2643, Vista, CA 92083, is distributing
 the latest decals from Detail & Scale which
 feature formation light panels for F-4 Phantoms,
 F-14 Tomcats, F-15 Eagles, and F-18
 Hornets. Sheet No. 0372 is for 1/144 and
 1/72, 0848 is for 1/48, and 0232 is for 1/32.

Krasel Industries, Inc., 919 Sunset Drive,
 Costa Mesa, CA 92627, has released eight
 new 1/72 decal sheets in its Microscale line.
 Sheet No. 72-464 features markings for
 three SR-71s, "Bodonian Express," "#10,"
 and "The Cat." Sheet 72-465 has three more
 SR-71s from NASA and the 9th Strategic
 Reconnaissance Wing, while a colorful CF-
 104 of the Canadian Armed Forces and an
 F-104G from West Germany in 25th anni-
 versary markings are on 72-466. Sheet 72-
 467 has stencil data for F-18 Hornets. F-4
 Phantom IIs from Minnesota, Alabama, and
 Louisiana Air National Guard units are fea-
 tured on 72-468. Sheet 72-469 contains
 markings for the new Royal Air Force F-4Js
 of No. 74 Squadron, and three 25th anni-
 versary aircraft of the West German Air Force:
 an F-4F of JG 71, F-4F of JBG 35, and RF-4F
 of AKG 51. Three B-58 Hustlers are the sub-
 jects of 72-470: "The Pulaski Hustler,"
 "Greased Lightning," and the Bendix Tro-
 phy winner. F-94B Starfires from the Ore-
 gon Air National Guard and the 61st, 65th,
 and 68th Fighter Interceptor Squadrons ap-
 pear on 72-471.

For 1/48 SR-71s, Krasel offers sheet No.
 48-239 with markings for two Blackbirds
 from the 9th Strategic Reconnaissance Wing.
 U-2s from the 4080th Strategic Reconnaissance
 Wing and the Air Force Flight Test
 Center are on 48-240, and U-2s "City of
 Sale" and "Smokey Joe" are featured on
 48-241. The last operational F-105 from the
 Georgia Air National Guard and an F-15A
 from the 318th Fighter Interceptor Squad-
 ron are the subjects of 48-242. West German
 F-4Fs from JBG 35 and JG 71, along with
 the Royal Air Force F-4Js from No. 74

Squadron, appear on 48-243, while the 25th
 anniversary RF-4F of AKG 51, West Ger-
 man Air Force, is on 48-244. Sheet 48-245
 features an F-104G from JG 34 of the West
 German Air Force and a CF-104 from the
 421 Squadron of the Canadian Armed Forces.
 Stencil data for F-18A Hornets make up 48-
 246.

Trident Products, P. O. Box 6201, Postal
 Station J, Ottawa, ON, Canada K2A 1T3,
 has released the following 1/72 decals in its



Flight Colors line of Canadian aircraft: No.
 72 A01 has Canadian Armed Forces CS2F
 Trackers in an early scheme, while 72 A02
 has CS2F Trackers in the current scheme.
 Sheet 72 A03 has markings for CHSS-2 Sea
 Kings in an early scheme, and sheet 72 A04
 has Sea Kings in the current scheme. Cana-
 dian CL-30 Silver Stars (T-33) of the Golden
 Centennaires and Snowbirds are featured
 on 72 A05. Two schemes of the Royal Cana-
 dian Air Force Golden Hawks CL-13 (F-86)
 Sabres are given on sheet 72 A06. Each
 sheet costs \$3.69.

New dry-transfer sheets from Woodland
 Scenics, P. O. Box 98, Linn Creek, MO
 65052, are No. DT 507, Railroad Gothic,
 white, \$2.98; DT 508, Railroad Gothic,
 black, \$2.98; and DT 556, assorted logos and
 advertising signs, \$4.98.

Paints and adhesives. Revell, 4223 Glen-
 coe Avenue, Venice, CA 90292, has intro-
 duced Quick Color Enamel Paint Markers
 in 12 gloss and metallic colors.

Figures. Available from Artistic Enter-
 prises, 9 Winston Crescent, Whitby, ON,
 Canada LIN 6Y3, are 25 mm Greek City
 States Hoplites and Auxiliaries sculpted by
 Julian Benassi. They are priced at (U. S.) 45
 cents unpainted and \$2.00 painted; add 10
 percent for postage. Also offered are Clyde-
 cast Miniatures' 25 mm 150-piece Napoleo-
 nic armies of Britain and France for \$50.00
 unpainted and \$300.00 painted per army.

Six plastic 1/12 knight-in-armor kits from
 Imai are being offered by Minicraft Models,
 Inc., 1510 West 228th Street, P. O. Box
 3577, Torrance, CA 90510. Available are
 No. B-1392, Elector Frederick I; B-1393,
 Archduke Siegmund of Austria; B-1394,
 Archduke Ferdinand II of Austria; B-1395,
 Emperor Maximilian II; B-1517, Phillip,
 Count of Hessen; and B-1518, Elector Otto
 Heinrich. The price is \$4.00 each.

Three sets of 1/32 figures from the 2nd
 Boer War, 1899, have been added to the line
 at Quartermaster Corps, P. O. Box 908,
 Buckingham, PA 18912: Set No. 17 contains
 six dead and wounded figures of the British
 infantry and Boers, \$57.00; No. 18 contains
 six dead and wounded figures of the British
 1st Highland Light Infantry and Boers,

\$60.00; and No. 19 contains six dead and wounded figures of the British 2nd Cameronians and Boers, \$60.00. Also new is set No. 20, six 1/32 figures of the British 24th Foot, Zulu War, 1879. Add \$2.00 per set for shipping.

Rafm Company, Inc., 19 Concession Street, Cambridge, ON, Canada N1R 2G6, has added 12 figures to its "Custom Character" line: product No. CC-13, Ranger; CC-14, Monk; CC-15, Paladin in plate armor; CC-16, Female thief; CC-17, Armored female fighter; CC-18, Crusader in chain mail; CC-19, Assassin Ninja; CC-20, Evil sorcerer; CC-21,



Gladiator; CC-22, Wood elf; CC-23, Goblinoid champion; and CC-24, Barbarian in leather and fur. Each 25 mm figure sells for \$2.25; add \$2.00 per order for postage.

Tiny Troopers, 19 Langton Road, Boscombe, Bournemouth BH7 6HS, England, has released product No. T. T./CR6, a 65 mm mounted trooper of the 13th Light Dragoons, Crimean War. The next release planned is a 90 mm Cromwellian Trooper of Horse. Tiny Troopers' figures are available in the U. S. from The Hobby Chest, 8808 Bronx, Skokie, IL 60077, and The Soldier Centre, P. O. Box 38, West Roxbury, MA 02132.

Accessories and diorama materials. Styrene rod, styrene tube, and wing struts are among the products available from Contrail Model Aircraft, Sutcliffe Productions, The Orchard, Westcombe, Shepton Mallet, Somerset BA4 6ER, England. Send \$1.00 for a catalog and price list.

New from D. G. Modelling Products, 8080 Langdon Avenue, Van Nuys, CA 91406, is SuperTube stainless steel tubing. Sizes include (all are interior diameters) .004" (1/72 .30-cal. barrels); .007" (1/72, .50-cal.); .006" (1/48, .30-cal.); .011" (1/48, .50-cal.); .009" (1/32, .30-cal.); and .017" (1/32, .50-cal.). Each piece is 4" long. SuperTube is available only in retail stores; the suggested price is \$5.79 for a package of six.

Tools. Blazer Products, P. O. Box 1019, New York, NY 10021, is offering a self-starting, piezoelectric, hand-held, refillable micro torch, product No. GB2001.

For a description of dental tools offered by Huckleberry Finn, write to P. O. Box 305, Gold Hill, OR 97525-9998. This mail-order firm sells dental tools that are factory seconds or factory surplus.

Jarmac, Inc., P. O. Box 2785, Springfield, IL 62708, has introduced the Sander-Plus. Using the Jarmac 4" Tilt Table Disc Sander as a base tool, a motor shaft extension now accommodates additional attachments such as polishing discs, sander discs, and scroll tools. The suggested retail price of model 5050 is \$99.50; add \$3.50 for postage and handling if ordering from Jarmac.

Moody Tools, Inc., 42-60 Crompton Avenue, P. O. Box 230, East Greenwich, RI 02818, is offering a 12-piece Torx driver set,



No. 58-0212, as part of its Acu-Min line of miniature hand tools. The suggested retail price is \$21.25.

Catalogs. Available for \$2.00 from Architectural Model Supplies, Inc., 115-B Bellam Boulevard, P. O. Box 3497, San Rafael, CA 94902, is an illustrated, 36-page model-builders catalog. It lists construction, finishing, and landscaping materials.

The 1985 kit, decal, and postcard catalog from ATP Incorporated, 3014 Abelia Court, San Jose, CA 95121, sells for \$1.00.

Scenery Unlimited, 310 Lathrop Avenue, River Forest, IL 60305, has released a 52-page 1985 catalog. The catalog, \$3.00 postpaid, lists 1/64 model parts, tools, vehicles, decals, scenery aids, figures, and detail parts.

The fall/winter 1984 aircraft, armor, auto, and ship catalog from Select Hobby Supplies, P. O. Box 723, Glastonbury, CT 06033, sells for \$2.00.

Industry news. Aeolus Publishing Limited, P. O. Box 2643, Vista, CA 92083, announced that it has acquired the right to use the name Scale-Master and to manufacture and distribute Scale-Master products. There are 29 aircraft decal sets in the Scale-Master line, with additional sets planned.

Miscellaneous. The Armchair Sailor Bookstore, Lee's Wharf, Newport, RI 02840, has published a free update to its descriptive bibliography of in-print marine books and videotapes.

The Base Camp, 33 Sheridan Avenue, Metuchen, NJ 08840, is offering a list of new products, sample base, and coupons for \$3.00.

Plans for the U. S. S. Iowa BB61 in 1/16" = 1' scale (item No. TFW-8) are available from the Floating Drydock, c/o General Delivery, Kresgeville, PA 18333, for \$20.00; a mailing tube and shipping are extra. These plans show the ship as it looked in October 1984. The Floating Drydock also sells items such as books, fittings, paints, tools, and photographs for ship modelers. Send \$1.50 for a catalog.

New from Helmet Products, Betchworth, Surrey RH3 7AH, England, are two 1/200 die-cast metal models of the Mk I and Mk IX Spitfire. Unpainted aircraft are priced at £1.50 (approximately \$1.65), while models with an authentic factory camouflage scheme and wing decals are priced at £3.60 (approximately \$3.95). Unpainted undercarriage legs sell for 35 pence each (approximately 40 cents). Add 25 percent for overseas postage.

Hobbypoxy Products, division of Pettit Paint Company, Inc., 36 Pine Street, P. O. Box 378, Rockaway, NJ 07866, recently introduced Fast Fill grain filler, product No. H15. Hobbypoxy says this single-component, air-drying grain filler is compatible

More FSM Update on page 9

VP CANADA		1/72 vacuforms	TOP QUALITY!
1	Avia BH-3 1922 Czech monoplane fighter	\$5.25 U.S.	
2	Bereznyak-Isaev BI WWII Soviet rocket fighter	3.95	
3	Blohm & Voss BV-40 WWII armored glider fighter	3.95	
4	Lavochkin LaGG-3 WWII Soviet fighter	5.95	
5	Messerschmitt ME-163A WWII rocket research fighter	5.95	
6	Avia BH-21 1925 Czech biplane fighter	5.35	
8	Beriev KOR-1 (Be-2) 1937 Soviet seaplane	6.95	
9	DFS 194 1940 pre-Me 163 research rocket aircraft	5.95	
10	Polikarpov R-5 1928 Soviet bomber biplane	6.95	
11	Aero A300 late '30s Czech twin engine bomber	8.95	
12	Avro Canada Arrow CF-105 (decals available)	12.95	
13	MiG I-270, Z 1946 Soviet rocket fighter	5.95	
Polish Injection Molded 1/72			
	Mikro PZL A/B Los bomber (2 versions)	11.95	
	Mikro YaK1/IM (2 versions), Czapla each kit	4.45	
	PZW Polish sailplanes NEW each	3.95	
Janitor Standard		All five for ...	18.50
Sep G11		Mucha Standard	
Bocian			
VICTORIA PRODUCTS			
930 FOUL BAY RD.		Payment in U.S. dollars	
VICTORIA, B.C.		POST FREE	
CANADA V8S 4H8		Send for Newsletter	

MICHIANA

— YOUR SEARCH IS OVER —

HOBBYLAND

343 Lincolnway West
South Bend, Indiana 46601
219-287-0180

— For all your hobby needs —

Armor - Aircraft - Ships
Decals - Tools - Books & Mag.

AVIATION VIDEO CASSETTES!
(Official Combat Footage)

AIR WAR!

Low Priced, High Quality Military History on Home Video Cassettes. VHS or BETA. We pay U.S. Postage. Most Orders Shipped Within 3 Working Days. Reliability! Our 20th Year!

"U.S. Air Force In Vietnam" COLOR
The Air Force played a crucial role in the struggle in Vietnam. All the latest USAF aircraft.

"Screaming Eagles In Vietnam" COLOR
The men of the 101st Airborne Division, the famous "Screaming Eagles" in action in Vietnam.

"This Is Korea" COLOR
Rediscovered classic of U.S. struggle for Korea. Early war-birds. A John Ford epic!

"History Of The Korean War"
P-51s fly 24-hour air strikes. B-29s and Sabre Jets. T-Bone. Bloody Ridge. Heartbreak Ridge.

"Hook Down, Wheels Down" COLOR
The history and heroism of our great carriers from USS Langley to USS JFK. Kamikaze action!

"Story Of Naval Aviation"
Navy in the air from its earliest days—the first transatlantic flight—to its modern role as a primary strike force.

"December 7th"
John Ford's Academy Award winning documentary of the devastating attack on Pearl Harbor. This video is a warbird feast!

©1985 NF VIDEO, Inc.

Only \$39.00

Only \$49.95

Only \$49.95

SAVE EVEN MORE . . .
All 3 Video Tapes Only \$129.95!

ORDER ANYTIME!

1-800-528-6050 Ext. 1440

All Major Credit Cards!

NF VIDEO, Inc., 177 Webster St., Suite 244
Monterey, CA 93940

An FSM Staff Report

1985 New Kit Releases

This special report was compiled from information provided by manufacturers, distributors, and importers. A few companies are importing foreign kits under their own label; some of these may not be "new" to the modeler. Prices and release dates are projected and subject to change. Catalog prices, when listed, include postage.

AIRFIX

The Palitoy Co., Owen Street, Coalville, Leicestershire, England

1/48 Tornado F2 ADV
1/72 Martin B-57B
1/72 AC-130H Gunship

AIRMODEL

Frank-Modellbau, D-7470 Albstadt 1, (Ebingen) Ob. Vorstadt 21, West Germany

Vacuum-formed aircraft kits, catalog, \$2.00

1/72

40 re-releases including:

Polikarpov I-15/I-15 bis

XF-91 Thunderceptor

BT-13 Valiant

Ryan X-13

Lockheed XFV-1

Antonov An-2

Dornier Do 317

Northrop XP-56 Black Bullet

Commonwealth CA-1 Wirraway

C. A. ATKINS

17 Ashbourne Avenue, Bridlington YO16 4PE, England

White metal aircraft kits

1/72

Piper J3 Cub

Short Crusader Schneider Trophy aircraft

Prototype Hawker Hurricane

BLUEJACKET SHIPCRAFTERS

93 Canal Street, Shelton, CT 06484

Catalog, \$2.00

T-2 Tanker, 1/16" = 1', Aug.

C. S. S. *Albamarle*, 3/16" = 1', Sept.

COMBAT MODELS

400 3rd Street, West Easton, PA 18042

Vacuum-formed kits, catalog, \$3.50

1/48 aircraft

Sunderland

P2V-7 Neptune

1/32 aircraft

TBF Avenger

P-80 Shooting Star

XP-55 Ascender

F7U-3 Cutlass

1/72 ships

SSN *Skipjack*

German WWI U-35

CONTRAIL MODEL AIRCRAFT

Sutcliffe Productions, Westcombe, Shepton Mallet, Somerset BA4 6ER, England

Vacuum-formed aircraft kits, catalog, \$1.00

1/72

Miles Monitor

Sukhoi Su-2

Ilyushin DB-3 and IL-4

Tupelov Tu-16 Badger

Yakovlev Yak-25 (3 versions)

Yakovlev Yak-28 (2 versions)

Handley Page Hyderabad and Hinaldi

A. V. Roe Manchester (full kit)

EAGLES TALON

P. O. Box 156, Sun Valley, CA 91352

Vacuum-formed aircraft kits

1/72

Ryan FR-1 Fireball

Ryan F2R Darkshark

Vought F8U-3 Crusader III

1/48

Arado Ar 234

EMPIRE PACIFIC

10805 East Artesia Boulevard, Cerritos, CA 90701

Empire Pacific imports several lines of Japanese kits.

Aoshima

1/16 1918 vintage bicycle, Mar., \$9.98

Arii

1/24 Lamborghini Jota, Jan., \$7.98

1/24 Pantera GTS, Jan., \$7.98

Gunze Sangyo

1/24 BMW Isetta, Apr.

LS

1/144 Northrop F-20 Tigershark, Apr., \$2.50

1/24 Tires and accessories (4 sets), Feb., \$3.00 ea.

Otaki

1/12 Honda 5800, Feb., \$44.95

ERTL/AMT

Highways 136 & 20, Dyersville, IA 52040

1/25 autos

Orange Blossom Special, Mar., \$7.50

Bigfoot, Mar., \$10.00

Tennessee Thunder, Mar., \$7.50

'86 Corvette, \$6.50

Junkyard Dog truck, \$14.00

1/16 autos

T-Bird, Cale Yarborough, Aug., \$14.75

T-Bird, Kyle Petty, Aug., \$14.75

Pontiac, Richard Petty, Aug., \$14.75

Pontiac, Tim Richmond, Aug., \$14.75

ESCI

Via Torino 15/19, 20063 Cernusco sul Naviglio, Milano, Italy

1/72 aircraft

Panavia Tornado IDS

CF-18

F-100D (Turkey, France)

F-16A (U. S., Turkey)

F-4F (Toned-down)

CF-104 "Indian"

1/48 aircraft

F/A-18 Hornet

Mirage III EA/EO (Argentina, Australia)

Mirage 2000

"Sandy" A-1

Target Tug AD-4

C. A. N. A. MB 326/H RAN

1/24 autos

Calberson R5 Rally

Würth M1 BMW

450 SLC Paris-Dakar Runner

1/72 armor

White M3 Scout Car

EXECUFORM

721 North Prospect Avenue, Redondo Beach, CA 90277

Vacuum-formed aircraft kits

1/72

Vultee BT-13, Mar., \$5.75

Convair 240 family, July, \$10.50

Hughes XF-11, Nov., \$13.50

FALCON

P. O. Box 10-213, Wellington, New Zealand

Vacuum-formed aircraft kits

1/72

Triple conversion kit III — E-1 Tracer, F9F-8P Cougar,

AP-2H Neptune, Feb.

HELLER

Polk/Heller, 346 Bergen Avenue, Jersey City, NJ 07304

Heller catalog, \$3.95

Bobkit (formerly Bobcat) range

1/24 Renault G260 Turbo truck, Apr., \$13.95

1/60 Wabco scraper, Apr., \$9.95

1/72 Transall Postal, May, \$9.95

1/32 Volvo Globetrotter and semi, May, \$17.95

1/24 Renault R5 Turbo, June, \$9.95

1/32 GMC Thunderblack van, June, \$5.50

1/32 Volvo F12.20, June, \$10.95

1/32 Semi, June, \$10.95

1/72 F-16 Fighting Falcon, Aug., \$5.95

1/32 Jeep CJ-7, Aug., \$5.95

1/32 GMC Dallas Police van, Aug., \$5.95

1/72 Super Tiger helicopter, Aug., \$5.50

1/72 Super Puma with Exocet, Oct., \$5.50

1/24 Peugeot 205 Turbo, Oct., \$9.95

1/72 Commando equipment and figures, Oct., \$5.50

1/72 Airport equipment and figures

1/32 Jeep CJ-7 Renegade

1/72 aircraft

Nord 2502 Noratlas UAT, Feb., \$12.95

Mirage F1CR, Mar., \$6.50

L-1049 Super G Constellation, May, \$12.95

C-118 Liftmaster, July, \$12.95

Boeing 707-320, Nov., \$24.95

1/48 aircraft

AS 350 Ecoureuil Gendarmerie helicopter, Mar., \$5.50

1/35 aircraft

Super Frelon with Exocet, July, \$29.95

1/24 autos

Citroën B-14 Normande, Feb., \$13.95

McLaren M7A, May, \$12.95

Renault R8 Gordini, May, \$12.95

Renault Alpine A210, June, \$12.95

1/16 autos

Citroën DS19 Cabriolet, June, \$29.95

1/35 armor

Somua S35, Feb., \$8.50

AMX 13/155 and VCA

HERITAGE SHIPBUILDERS

P. O. Box 494, Lathrup Village, MI 48076

Wood and vacuum-formed ship kits, catalog, \$1.00

Whaleback freighter *Washburn*, 1/16" = 1', Jan., \$79.00

Lumber hooker *Charles H. Bradley*, 1/16" = 1', Mar.,

\$69.00

Whaleback passenger ship *Christopher Columbus*, 1/16" =

1', July, \$99.00

Self-loader freighter, 1/32" = 1', Aug., \$79.00

HUMA-MODELL

Kilianstädter Strasse 9, 6450 Hanau 6, West Germany

Injection-molded aircraft kits

1/72

Messerschmitt M35B

Klemm Kl 35

DFS 230

KOSTER AERO ENTERPRISES

233 East Ellis Avenue, Libertyville, IL 60048

Vacuum-formed aircraft conversion kits

1/48

P-38E, F-5E (Recon. P-38), Droop Snoot, \$6.95

Fokker D. VIII, \$8.95

Sopwith Triplane, \$9.95

Douglas A-20 Havoc (multi-version), \$20.95

KPL MODELS

703 Cannon Road, Silver Spring, MD 20904

Vacuum-formed aircraft kits, catalog, SASE

1/72

Fiat CR.25 bis, Jan., \$7.95

CA. 11 Woomera, Mar., \$7.95

Amiot 354, Mar., \$7.95

Saab-18, Apr., \$7.95

Imam Ro.58, Aug., \$7.95

CA. 331B Raffica, Dec., \$7.95

L. D. M.

37 Crewes Avenue, Warlingham, Surrey CR3 9NZ, England

White metal aircraft kits, catalog, 2 IRCs

1/48

D. H. 82A Tiger Moth, Jan., \$28.00

Clerva C.30A Autogiro (revised), Aug., \$19.00

Pitts SI-S (revised), Oct., \$19.00

LINDBERG

P. O. Box 880, 191 West Carpenter, Wheeling, IL 60090

1/24 autos

Mustang DE-4, \$5.75

Corvette TC-8, \$5.75

Camaro Kammback, \$5.75

Firebird Sportwagon, \$5.75

Ships

1/64 *Southern Belle*, May, \$10.00

1/96 *Fulton's Clermont*, May, \$10.00

1/124 Civil War Blockade runner, May, \$10.00

MINICRAFT

(including Hasegawa)

P. O. Box 3577, Torrance, CA 90510

Hasegawa

1/16 aircraft

Wright Flyer, \$170.00

1/32 aircraft

F-18A production Hornet, \$85.00

1/48 aircraft
 F-15E Strike Eagle, \$30.00
 F-15C Eagle, \$25.00
 Weapons loading set, \$8.50
 Ground equipment, \$8.50
1/72 aircraft
 F-16A (block 15), \$7.00
 F-16A Thunderbird, \$7.00
 F-4F Phantom II, \$7.25
 UH-60A Blackhawk, \$8.50
 SH-60B Seahawk, \$8.50
 HH-60D Nighthawk, \$8.50
 F-18A Hornet (production), \$8.50
 Ground equipment, \$6.00
 Pilots and crew, \$6.00
1/200 aircraft
 ANA 747, \$12.00
 Sudjal 747-300, \$12.00
 Big Top 747-300, \$12.00
 Space Shuttle, \$8.50
 Space Shuttle with boosters, \$18.00

Minicraft (new line)
 1/144 Tu-22M Backfire B, \$8.00
 1/72 Super Etendard, \$6.00
 1/48 AH-1G HueyCobra, \$4.50
 1/48 UH-1B Tow Huey, \$5.50
Imai 1/12 motorcycles
 Harley-Davidson Electra Glide, \$14.00
 BMW R100S, \$14.00
 BMW Krauser MKM 1000, \$14.00
 Harley-Davidson FXS Low Rider, \$14.00
 Harley-Davidson FLHC Classic 80", \$14.00
 BMW R100RS, \$14.00
 Harley-Davidson Fat Bob, \$14.00
Imai miscellaneous
 1/16 Captain Kidd diorama, \$35.00
 1/16 HMS Victory 24-lb. Gunner diorama, \$100.00
 1/200 U. S. Coast Guard Eagle
Crown 1/1 pistols
 M28 .357 Magnum Highway Patrol
 M29 .44 Magnum 6.5"
 M29 .44 Magnum 8.3"
 Police .357 Magnum 2.5"
 Police .357 Magnum 6"
 Walther P-38
 M29 .44 Magnum 4" 7 mm cap gun
 M29 .44 Magnum 6" 7 mm cap gun
Miscellaneous
 Five Gowland Highway Pioneer sets, \$10.00 each
 1/32 1929 Duesenberg, \$4.00
 1/32 1936 Beverly Cord, \$4.00
 1/16 1912 Ford Model T, \$16.00
 1/25 427 AC Cobra, \$14.00

MONOGRAM MODELS

8601 Waukegan Road, Morton Grove, IL 60053-2295
 Catalog, \$2.00

1/72 aircraft
 SR-71A "Call to Glory," Mar., \$8.00
 F-105F Thunderchief, Oct., \$5.50
 F-4C/D Phantom II, Oct., \$5.50
 F-4J Phantom II, Oct., \$5.50
1/48 aircraft
 F-4 Phantom II "Call to Glory," Mar., \$8.00
 F-105F "Call to Glory," Mar., \$8.00
 F-111A "Call to Glory," Mar., \$8.00
 F-101B Voodoo, May, \$7.75
 F-105D Thunderchief, May, \$7.75
 F-4J Phantom II MIG Ace, May, \$7.75
 B-58A Hustler, Aug., \$16.00

1/32 autos
 Devastator 6x6 Monster truck, Mar., \$11.50
 Intimidator 6x6 Monster truck, Mar., \$11.50
1/24 autos
 '65 Shelby GT-350, Feb., \$6.50
 '71 'Cuda Street Machine, Feb., \$6.50
 ZZ Top '33 Ford Eliminator, Mar., \$6.25
 Boot Hill Express Show Rod, Mar., \$6.25
 Red Baron Show Rod, Mar., \$6.25
 L'il Coffin Show Rod, Mar., \$6.25
 Skoal Bandit Monte Carlo SS, Apr., \$6.25
 Valvoline Buick Regal, Apr., \$6.25
 Monster Mash Chevy 4x4, Apr., \$9.25
 Hammerhead Chevy 4x4, Apr., \$9.25
 Ford Motorsport Mustang GTP-IMSA, June, \$6.25
 7/Eleven Ford Mustang GTP-IMSA, June, \$6.25
 7/Eleven Ford Mustang AA/FC funny car, June, \$6.25
 Don Prudhomme's Firebird AA/FC funny car, June, \$6.25

Dale Pulde's Miller Warrior Firebird funny car, June, \$6.25
 Snap '85 Z-28E Camaro, June, \$6.25
 Snap '85 Corvette Coupe, June, \$6.25
 Snap '85 Shelby Charger Turbo, June \$6.25
 Snap Datsun Pickup-Miller, June, \$6.25
 '65 Mustang 2+2 Fastback, Sept., \$6.25
 '64 Pontiac GTO Sport Coupe, Sept., \$6.25
 '70 Chevelle Street Machine, Sept., \$6.25
 '78 Pontiac Trans Am Street Machine, Sept., \$6.25
 '78 Chevy Camaro Street Machine, Sept., \$6.25
 '32 Ford Roadster Street Rod, Nov., \$6.25
 '39 Chevy Coupe Street Rod, Nov., \$6.25
 '40 Ford Pickup Street Rod, Nov., \$6.25
 '36 Ford Coupe Street Rod, Nov., \$6.25
1/8 autos
 Golden "T" Street Rod, Aug., \$35.00
 Camaro IROC-Z, Aug., \$35.00
Miscellaneous
 Turbo Teens Trans Am Firebird
 Five Gobots

MPC

26750 Twenty-three Mile Road, Mount Clemens, MI 48045
1/12 motorcycles
 Streethawk motorcycle, June
1/16 autos
 '57 Corvette, June
1/25 autos
 '85 Firebird, Mar.
 '85 Camaro Z-28, Mar.
 '69 Firebird, Mar.
 '67 Charger, Mar.
 Streethawk Mustang, Mar.
 Monza Pro Street, Apr.
 Corvette Custom, Apr.
 Firebird Custom, Apr.
 Duster Street Machine, Apr.
 Datsun Scavenger Monster truck, May
 Corvette collector set ('57, '75, '85), May
 '75 Corvette convertible, June
 Night Stalker
 Camaro Pro Street, June
 Mustang Pro Street, June
 Chevy Nova, Aug.
 Chattanooga Chew Monte Carlo, Aug.
 Copenhagen Monte Carlo, Aug.
 Valvoline Buick Regal, Aug.
 Skoal Bandit Buick Regal, Aug.
1/25 Autoscope dioramas
 CJ7 Jeep, Feb.
 Commando Off Road, Feb.
 Barracuda, Feb.
 Mustang II, Feb.
Miscellaneous
 Tarantula and Magnetron robots, May
 1/25 scale Jupiter locomotive, July
 1/32 snap Rhino Rig, Sept.
Aircraft
 1/48 AH-64 Apache (Airfix), July
 1/72 AC-130H Spectre (Airfix), July

MRC-TAMIYA

Model Rectifier Corporation, 2500 Woodbridge Avenue,
 Edison, NJ 08817
 Catalog, \$4.00
1/35 armor
 M3 Bradley CFV, Apr.
1/12 motorcycles
 Honda CBR400F, Jan., \$11.98
 BMW K100, Jan., \$12.98
 Yamaha RZV500R, Jan., \$12.98
 Yamaha RZV500 (OW70) Grand Prix, Feb., \$12.98
 Honda CBR400F Endurance, Apr.
1/24 autos
 Honda Civic Hatchback, Mar., \$11.98
 Ford Sierra XR4i, Apr.
1/350 ships
 U. S. Navy aircraft set, Feb.
 U. S. S. Enterprise, Mar., \$139.95

NOVA MODELS

P. O. Box 9809, Fountain Valley, CA 92728
 Vacuum-formed aircraft kits, catalog, \$1.00
1/72
 Tupelov Tu-26 Backfire
 Northrop YB-49/YRB-49A Flying wing
 Douglas A-3 Skywarrior (all variants)
 Douglas B-66 Destroyer (all variants)

VERLINDEN

Special Offer - 10% Discount*

FULL-COLOR MODELING MANUALS

- #1 The Verlinden Way Vol 1: Diorama Building \$9.95
- #2 The Verlinden Way Vol 2: AFV Modeling \$9.95
- #3 The Verlinden Way Vol 3: On Plastic Wings \$9.95
- #4 On Target No 1: The German Tiger Tanks \$8.95
- #5 Lock On No 1: C/N F-104 G/J Starfighter \$10.95
- #6 Lock On No 2: G.D. F-16 Fighting Falcon \$10.95
- #7 Lock On No 3: C-130 Hercules (Late '85) \$10.95

WW/2 FULL-COLOR PRINTED ACCESSORIES: 1/35 SCALE

- #8 Newspapers, Posters, Portraits, Instruction Sheets \$2.95
- #9 Staff, Road and Aviation Maps, plus Manuals etc \$2.95

WW/2 PRINTED CUT-AND-FOLD BOXES: 1/35 SCALE

- #10 US Army Field C-Rations Cartons (13 pieces) \$2.95
- #11 Military Cardboard Boxes (various types) \$2.95

WW/2 FULL-COLOR PRINTED ACCESSORIES: 1/35 SCALE

- #12 German Military/French Civilian Signs/Normandy \$3.50
- #13 Allied Road Signs/Normandy to Berlin (36) \$3.50
- #14 German Road Signs/Russia (54 different signs) \$3.50
- #15 German & Allied Road Signs/North Africa (29) \$3.50

MISCELLANEOUS ACCESSORIES: 1/35 SCALE

- #16 Camouflage Netting (in green, brown & tan) \$2.95

MODERN PRINTED CUT-AND-FOLD BOXES: 1/20 & 1/24

- #17 Modelkit Packing Boxes for Truck-Loads (6) \$2.95
- #18 Petroleum Products Packing Boxes (6 pieces) \$2.95

VERLINDEN FULL-COLOR CATALOG/HANDBOOK

- #19 Covers Kits, Printed Accessories, Dry Decals, Books, Painting and Finishing Tips / 24 pages, 8" x 11" \$3.50

DRY DECALS FOR LARGE AFV MODELS: 1/35 SCALE

- #20 WW/2 US Army Vehicle Markings (white) \$5.95
- #21 Israeli Military Vehicle Markings No 1 (b & w) \$6.50
- #22 Israeli Military Vehicle Markings No 2 (b & w) \$6.50
- #23 WW/2 German Army Vehicle Markings No 1 \$6.95

NEW FULL-COLOR PRINTED ACCESSORIES: 1/35 SCALE

- #24 WW/2 German Propaganda Posters (contains 20) \$3.50
- #25 WW/2 Allied Propaganda Posters (contains 20) \$3.50

OUTSTANDING NEW VERLINDEN ACCESSORIES

- #26 Barbed Wire: 1/35 (photo-etched, 132" long) \$4.50

Cockpit Inst. 1/12: #27 F-16 / #46 F-104 / Each \$4.50

FORTHCOMING MODELING MANUAL IN SERIES

- #28 The Verlinden Way Vol 4 (pub Apr/May '85) \$10.95

NEW, UNUSUAL VERLINDEN ACCESSORIES: 1/35 SCALE

- #29 Modern Field Rations: US MRE Cartons \$2.95
- #30 Bannisters, Ornaments (detailed, photo-etched) \$4.50
- #31 Wrought-Iron Gates: with hinges (photo-etched) \$4.50
- #32 Cut-Glass Decorated Windows (in polyester) \$5.95

NEW FULL-COLOR PRINTED ACCESSORIES: 1/35 SCALE

- #33 WW/2 French Commercial Signs (contain 27) \$3.50
- #34 WW/2 German Commercial Signs (contains 31) \$3.50

NEW DRY DECALS FOR AFV MODELS: 1/35 SCALE

- #35 WW/2 US Army Stars, Letters, Numbers (white) \$5.95
- #36 Modern US Army Stencilling No 1 (white) \$4.50
- #37 Modern US Army Stencilling No 2 (black) \$4.50
- #38 Modern US Army Code Numbers & Stars (black) \$4.50

AT LAST! NEW DRY DECALS FOR AIRCRAFT MODELS

- #39 A/C Stencilling No 1: 1/32 & 1/48 (white) \$4.50
- #40 A/C Stencilling No 2: 1/72 scale (white) \$4.50

"THE TANKERS": NEW 54mm WHITE METAL FIGURES

- #41 US Tank Commander 1980s (includes base) \$9.95
- #42 Israeli Tank Commander 1970s (includes base) \$9.95
- #43 US Tank Crew 1980s (three "half-figures") \$10.95
- #44 Israeli Tank Crew 1970s (three "half-figures") \$10.95
- #45 Six different "Heads" (for conversion projects) \$4.50

VERLINDEN FULL-COLOR CATALOG/HANDBOOK

VISIT SKY BOOKS INTERNATIONAL IN THE HEART OF NEW YORK CITY - THE WORLD'S LARGEST & MOST EXCITING STORE FOR AVIATION, MILITARY & NAVAL BOOKS & MAGAZINES / You never know who you'll bump into! Some of our more famous customers are Dan Aykroyd, Robert K. Brown (of SOF), David Ebel, Jeff Ethell, Keith Ferris, Norman Friedman, Adolf Galland, Anthony Herbert ("Soldier"), Tom Hitchcock (Monogram), David Isby, Jo Kotula, Alan Raven, Cliff Robertson, Paul Silverstone, W/Cdr. Stanford-Tuck, Mel Torme, Nigel West, Frank Wootton, Chuck Yeager, Steve Zaloga...

<input type="checkbox"/> #1 \$8.95	<input type="checkbox"/> #2 \$8.95	<input type="checkbox"/> #3 \$8.95	<input type="checkbox"/> #4 \$8.05
<input type="checkbox"/> #5 \$9.85	<input type="checkbox"/> #6 \$9.85	<input type="checkbox"/> #7 \$9.85	<input type="checkbox"/> #8 \$2.65
<input type="checkbox"/> #9 \$2.65	<input type="checkbox"/> #10 \$2.65	<input type="checkbox"/> #11 \$2.65	<input type="checkbox"/> #12 \$3.15
<input type="checkbox"/> #13 \$3.15	<input type="checkbox"/> #14 \$3.15	<input type="checkbox"/> #15 \$3.15	<input type="checkbox"/> #16 \$2.65
<input type="checkbox"/> #17 \$2.65	<input type="checkbox"/> #18 \$2.65	<input type="checkbox"/> #19 \$3.15	<input type="checkbox"/> #20 \$5.35
<input type="checkbox"/> #21 \$5.55	<input type="checkbox"/> #22 \$5.85	<input type="checkbox"/> #23 \$6.25	<input type="checkbox"/> #24 \$3.15
<input type="checkbox"/> #25 \$3.15	<input type="checkbox"/> #26 \$4.05	<input type="checkbox"/> #27 \$4.05	<input type="checkbox"/> #28 \$9.85
<input type="checkbox"/> #29 \$2.65	<input type="checkbox"/> #30 \$4.05	<input type="checkbox"/> #31 \$4.05	<input type="checkbox"/> #32 \$5.35
<input type="checkbox"/> #33 \$3.15	<input type="checkbox"/> #34 \$3.15	<input type="checkbox"/> #35 \$5.35	<input type="checkbox"/> #36 \$4.05
<input type="checkbox"/> #37 \$4.05	<input type="checkbox"/> #38 \$4.05	<input type="checkbox"/> #39 \$4.05	<input type="checkbox"/> #40 \$4.05
<input type="checkbox"/> #41 \$8.95	<input type="checkbox"/> #42 \$8.95	<input type="checkbox"/> #43 \$9.85	<input type="checkbox"/> #44 \$9.85
<input type="checkbox"/> #45 \$4.05	<input type="checkbox"/> #46 \$4.05	Total items ordered	

Send me the items checked, for which \$_____ is enclosed.
 NY City residents add 8-1/4% Sales Tax / Elsewhere in NY State, add Local Sales Tax / Plus \$2 shipping and handling
 Name _____ Date _____ 1985

Address _____
 City _____ State _____ Zip _____

SKY BOOKS INTERNATIONAL (FSM) / 48 EAST 50th ST
 NEW YORK / NY 10022 / USA * Phone 1-718-767-6632

Dealer enquiries to: BILL DEAN BOOKS LTD / 151-49 7th AVENUE / WHITESTONE / NY 11357 * 1-718-767-6632
 (BDB is the sole US distributor of Verlinden Publications)

*...these prices are valid when ordering from this FSM ad.



1/48 SCALE HAWKER HURRICANE Mk IIC

Injection Molded.

Send \$6.00 plus \$2.00
for postage & handling.

Texas Res. add 5% sales tax.

CACTUS AIRFORCE
P.O. Box 761, College Station, TX 77841

CUSH

FACT, FICTION & FANTASY MAIL ORDER — OUR SPECIALTY MINIATURE FIGURES



NOW IN STOCK

The newest offering
by D. F. Grieve
Models.

DG 18
Officer,
Naval Brigade,
Sudan, 1884/85

65mm Unpainted Metal
Casting

\$9.00

+ \$1.50 Shipping Per Order
Wisconsin Residents Add
5% Sales Tax

Send \$5 For Full Illustrated Catalog
(\$6 Outside Continental U.S.)

190+ Pages • In-Stock Items Pictured • Periodic Updates

CUSH

6525 W. Bluemound
Milwaukee, WI 53213

Hours By Appointment (414) 258-6006

WHAT EVERY SERIOUS MODELLERS ARE
AWARED OF, BUT COULD NEVER FIND...



GUNZE SANGYO PRODUCTS

SOON, WILL BE AVAILABLE AT YOUR
LOCAL HOBBY SHOP.

DEALER ENQUIRIES INVITED

Exclusive Distribution by:
MARCO POLO IMPORT, INC.
2239 Tyler Ave., Unit 'A'
So. El Monte, CA 91733

Boulton-Paul P.111A
Lockheed U-2R/TR-1
Ilyushin IL-76 Candid

RAREPLANES

69 Redstone Hill, Redhill, Surrey, England
Vacuum-formed aircraft kits, catalog, 1 IRC
1/72
Beech King Air 200 (C-12), Feb.
Grumman XF5F Skyrocket, May
Douglas A-3 Skywarrior, July
Republic AT-12 Guardsman, Sept.

REVELL

4223 Glencoe Avenue, Venice, CA 90292
1/32 aircraft
Bell Jet Ranger (ex-IMC), Apr., \$6.50
F-15C Eagle, July, \$23.00
AH-64A Apache, Sept., \$10.50
Tornado GR. Mk. 1, Sept., \$13.00
1/48 aircraft
B-25 Mitchell, Apr., \$8.50
B-17F Flying Fortress, May, \$15.00
F9F-8 Cougar (1/52), June, \$5.50
1/100 aircraft
F-14A (ex-Mania), Mar., \$4.00
F-15A (ex-Mania), Mar., \$4.00
F-105D (ex-Tamiya), Apr., \$3.25
A-7A (ex-Tamiya), Apr., \$3.25
A-6A (ex-Tamiya), Apr., \$3.25
1/144 aircraft
A310 Pan Am Airbus, May, \$8.50
Space Shuttle and satellite, May, \$10.00
Supper Guppy (ex-Otaki), May, \$10.50
Space Shuttle Launch Complex with Shuttle, Oct., \$50.00
without shuttle, Oct., \$40.00
1/350 ships
U. S. S. Iowa (refit), May, \$32.00
U. S. S. Ticonderoga CG-47
H. M. S. Lusitania (ex-Entex), Aug., \$60.00
U. S. S. Missouri (WWII), Aug., \$32.00
1/12 autos
'55 Mercedes 300SL Gullwing, Apr., \$22.00
Shelby GT-350 Mustang, Aug., \$60.00
1/16 autos
Grant Tracks, Apr., \$22.00
Rolls-Royce Phantom III, Aug., \$60.00
1/25 autos
Stompers 4x4 Chevy Blazer, Jan., \$9.25
Stompers 4x4 Chevy Pickup, Jan., \$9.25
Stompers 4x4 Jeep, Jan., \$9.25
Stompers Blazer with trailer and dune buggy, Jan., \$11.45
Stompers Jeep with trailer and dirt bikes, Jan., \$11.45
Snapkit Porsche 911 Turbo, Mar., \$8.00
Porsche 911 Cabrio, May, \$6.75
VW Bug, May, \$6.75
Monza Street Machine, May, \$6.75
Lux Mini Pickup, May, \$6.75
Anglia Gasser, May, \$6.75
1/32 autos
Snapkit VW Pickup with ATC, Mar., \$6.00
Snapkit Jeep Laredo, Mar., \$6.00
'59 Chevy Impala (ex-Gunze Sangyo), Apr., \$6.50
'63 Ford Thunderbird (ex-Gunze Sangyo), Apr., \$6.50
'59 Cadillac Eldorado (ex-Gunze Sangyo), Apr., \$6.50
Miscellaneous
Statue of Liberty, May, \$7.00
1/1 Western .44 pistol, June, \$6.00
1/1 Civil War Navy pistol, June, \$6.00
1/1 Dueling pistols, June, \$6.00
1/1 Peacemaker .45 pistol, June, \$6.00
1/3 Visible Turbo engine, June, \$40.00
1/16 Wells Fargo stagecoach, Aug., \$40.00
3 Dune kits
17 Robotech and Autobot kits

TESTOR

620 Buckbee Street, Rockford, IL 61108
1/72 aircraft
Texan Trainer (ex-Hawk), Jan., \$3.75
F-5E Tiger II (Italeri), Jan., \$6.00
T-28 Trojan (ex-Heller), Feb., \$5.00
Fw 190A/F (ex-Heller), Feb., \$5.00
P-40E Warhawk (ex-Heller), Feb., \$5.00
F6F-5 Hellcat (ex-Heller), Feb., \$5.00
Spitfire Mk Vb (ex-Heller), Feb., \$5.00
P-39Q Airacobra (ex-Heller), Feb., \$5.00
F-86E Sabre Jet (ex-Heller), Feb., \$5.00
Mirage 2000 (ex-Heller), Feb., \$6.00

F-8E Crusader (ex-Heller), Feb., \$6.00
Ju-87B-1 Stuka (ex-Heller), Feb., \$6.00

1/48 aircraft

AH-1S Cobra (ex-Fujimi), Feb., \$11.00
F-18A Hornet (Italeri), Feb., \$7.50
C-130 Hercules (Italeri)

1/35 armor

M109 A2 self-propelled howitzer (Italeri), Jan., \$11.00

1/24 autos

1936 Mercedes 540K (Italeri), Jan., \$8.00
1933 Cadillac Fleetwood (Italeri), Jan., \$8.00

THUNDERBIRD MODELS

Route 13, Box 257B, Fort Worth, TX 76119

Injection-molded aircraft kits

1/72 F-89D/H/J Scorpion, Apr., \$7.50
1/48 Ta 152H, July, \$8.00
1/48 F7F Tigercat, Aug., \$10.00
1/72 F3H Demon, Oct., \$6.00
1/72 F7U-3 Cutlass, Nov., \$6.00

TWENTIETH CENTURY IMPORTS

4732 East Pearl Street, Boulder, CO 80301

Bandai 1/48 armor (limited editions)

105 mm Wespe, Apr., \$6.50
Opel Maultier, Apr., \$6.50
Nashorn antitank gun, Apr., \$6.50
Jagdpanther, Apr., \$9.50
76 mm M4A3 Sherman, Apr., \$9.50
Panzer IV Ausf. H, Apr., \$9.50
Russian T-34/76, Apr., \$9.50
U. S. M13 gun carriage, Apr., \$9.50
SdKfz 251/1 Type A, July, \$6.50
105 mm Sturmgeschutz III-G, July, \$6.50
Daimler Mk-I armored car, July, \$6.50
Panther, July, \$9.50
SdKfz 232, July, \$6.50
King Tiger, July, \$9.50
Matilda, July, \$9.50
Russian KV-1A, July, \$9.50
Miscellaneous
Nitto 1/24 autos, June
28 Bandai Starblazers sci-fi cartoon models
12 Nitto SF 3D 1/20 scale futuristic military models

299 MODELS

3612 201 Place SW, Lynnwood, WA 98036

Limited run injection-molded aircraft kits, catalog, SASE

1/72

Nakajima Ki-115 Tsurugi

WAR EAGLE

(including Gull Models)

P. O. Box 255, New Baltimore, MI 48047

Vacuum-formed aircraft kits

1/48

North American F-100F
LTV RF-8G Crusader
MiG-17 Fresco C
MiG-17 Fresco D
Morane-Saulnier M.S.406
I.A.E. DL 22
LTV TA-7C Corsair II
LTV A-7K Corsair II
McDonnell F3H Demon
D4Y radial Judy (Gull)
D4Y in-line Judy (Gull)
Bf 109B/D (Gull)

WINGS 72 & WINGS 48

3349 Wildridge Drive, NE, Grand Rapids, MI 49505

Vacuum-formed aircraft kits

1/72

TBU-1/TBY-2 Seawolf
Fokker T8W
Breguet 14
Salmson 2A2
Armstrong Whitworth FK 10
Kawasaki K1-60
Seiran/Nanzan
P-63 Kingcobra
1/48
SOC Seagull on floats
SOC Seagull with wheels
Ryan FR-1 Fireball
Ryan F2R Darkshark
Northrop N9M
Northrop BT-1

Every FSM Workbench Review is a first-hand report by a modeler who has actually built the kit or used the product. While our reviewers are encouraged to compare the products to similar ones in their experience, evaluation is of secondary importance; the reviewer's primary goal is to provide a detailed description of the product so FSM readers can evaluate it for themselves. Models shown in Workbench Reviews are built straight from the box.

Kit: No. 2608, 1985 Corvette

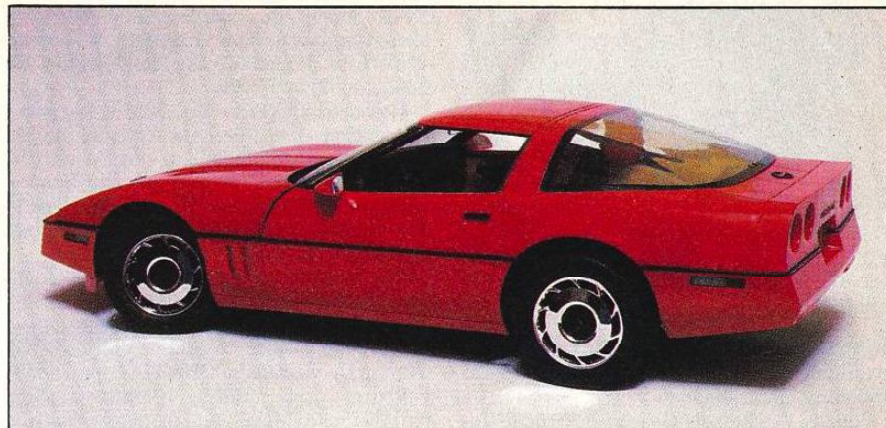
Scale: 1/8

Manufacturer: Monogram Models Inc., Morton Grove, IL 60053-2295

Price: \$35.00.

THE LATEST "SUPER SCALE" auto kit from Monogram is the newest U.S.-made supercar — Chevrolet's Corvette. The 131 parts are molded in red, black, metallic gray, chrome, and clear styrene. The four vinyl tires are one of the high points of the kit; they accurately portray the left- and right-handed Goodyear Eagle VR50 "gatorback" tires found only on the new Corvettes. Decals include some of the dashboard instruments, underhood maintenance placards, and license plates.

Although the dashboard and seats were well molded, the shallow relief of the interior door panel latches and window switches was a disappointment. The engine has excellent detail, but the underframe is not as detailed as on some 1/25 scale Corvette kits. The windows are thin and clear, with well-marked lines for the black-painted areas. I



Both photos, Brian Gibbs

wish the taillight lenses were molded in transparent red styrene instead of clear.

The 53-step instruction sheet is easy to follow except for the exact location of the alternator bracket (No. 38 in step 38) and the air conditioner hose (No. 71 in step 43). The parts fit well, but I had a little trouble with the windshield and rear window — the roof pillars were slightly warped, probably damaged in shipping. I had to resort to super glue to attach the windows.

The chassis is attached to the body with a tab flange at the rear and four screws at the front. Adjusting these screws allows the hinged hood to sit properly when closed. Although I don't have measurements to compare the model against, it certainly looks accurate compared to photos in Michael Lamm's *The Newest Corvette*. For sheer size, the model is impressive — nearly 22" long. Although a large model, it wasn't difficult to



build. Modelers with little experience should be able to handle it easily — I spent 15 hours on mine. It makes a nice companion piece to Monogram's 1/8 scale 1965 and 1978-1982 'Vettes.

Art Loder

Kit: No. 2447, Porsche 956

Scale: 1/24

Manufacturer: MRC-Tamiya, Model Rectifier Corporation, Edison, NJ 08817

Price: \$12.98.

CAN A RACING CAR be invincible? The Porsche 956 certainly comes close. Porsche introduced the 956 in 1982 to meet the new Group C Prototype regulations for the World Endurance Championship, which it has won for the three years since. In the 1982 24-hour Le Mans, it swept the first three places, then in 1983 it took nine of the first ten, and in 1984 it swept the first seven. Nearly invincible!

The kit contains 89 parts molded in white, gray, and clear styrene with vinyl tires and soft plastic wheel bearings. The six-color decal sheet provides markings for any of the three factory "Rothmans" entries from the 1983 Le Mans race. A removable rear body section reveals the highly detailed engine, transmission, and suspension bay. The quality of the molding is excellent, typical of MRC-Tamiya's recent releases.

I built the model according to the easy-to-follow, illustrated, 14-step instructions. I found one problem regarding the paint references: The recommended Tamiya Acrylic Blue (X-4) is too light for the dark blue body color. The darker Tamiya X-3 correctly



Bruce Johnson

matches the Rothmans blue. All other color references are accurate.

The kit is cleverly engineered — some mold seams match welded seams on the real car, most noticeable on the air boxes in the intakes. Although the completed model looks complex, construction is simple enough for an average modeler.

The box art is the best reference for the engine compartment details that I have seen. Modelers who wish to add extra details to this area need look no further.

The decals were neatly printed and went

on easily. After I applied a small amount of setting solution, they conformed to the complex contours of the model with no wrinkling. However, the dark blue paint showed through the white decals. The individual instrument decals for the cockpit instrument panel are a nice touch.

The completed Porsche appears accurate compared to photos in *Grand-Prix International Le Mans 1983 Special*. The careful assembly and detail painting takes extra time but the results are worth it. I took 26 hours to complete the model.

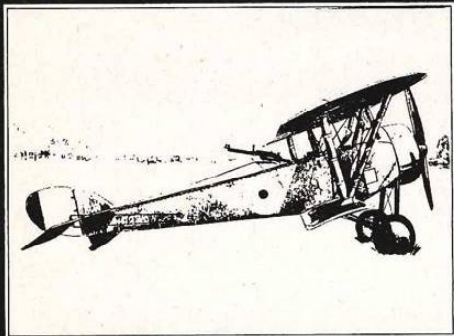
Bruce Johnson

ROSEMONT

HOBBY SHOP
is pleased to announce

ROSEPLANE

1/72 SCALE



Nieuport 12 French WWI Fighter aircraft

This kit contains a highly detailed vacuum-formed styrene sheet incorporating all materials and templates required to complete the model, extruded rod and struts, clear sheet, concise 3-view colour guide, instructional drawings, written colour guide, brief history, and references used in the design of this kit.

Specification
Span 23' 7" 10.0m
Length 23' 6" 7.3m
Height 8' 1" 2.5m
Max. speed 95 mph 155 km/h
Service ceiling 15,420' 4,700m
Power Plant 1 x 150 hp Clermont 8b radial
Crew 2
Armament 1 or 2 Lewis .303 machine guns

Masters made by the same master modeler who created the Formaplane molds.

Next model to follow • Martinsyde Elephant • Roland D II • Packard Le Pere Lusac-II

Compucolor

Authentic Enamels for Modelers

\$1.29 per 1/2 oz. tin

Full Range of Aircraft &

Armor Colors

Computer Matched Colors

AEROCLUB

White Metal Castings

Propellers, Engines

Machine Guns, Ejection Seats

1/72 and 1/48 Scale

Why rob parts from kits?

AIRWAVES
CONTRAIL
GULL MODELS
HUMA MODELS
MODEL DECAL
MILLIPUT PUTTY
MURPHEY RULES
NEW HOPE DESIGN

PEGASUS MODELS
SCALE LINK
RAREPLANES
VAC WINGS
VERLINDEN
WELSH MODELS
WHITE EAGLE

• Kit Collectors' Corner • Milliput Putty • Full Line of Modeler's Needs
• The serious modelers hobby shop

Try Us, You'll Like Us. • MasterCard & Visa
Send Two 22¢ Stamps for Lists To:

ROSEMONT

HOBBY SHOP

P.O. Box 139, Trexler Mall

Trexlerstown, PA 18087

(215) 398-0210

Dealer Orders Welcome for
ROSEPLANE & COMPUCOLOR Paints.



TAKARA



HASEGAWA



GUNZE



IMAI

Mikerian Mercantile Ltd.

9616 - 45 Avenue, Edmonton, Alberta, Canada T6E 5Y9. Phone (403) 436-2854, Telex 037-3739 Mikerian Edm

Exclusive agents in Canada for Hasegawa, Gunze, Imai & Takara model kits.

We also carry the better quality models from around the world. Dealer inquiries welcome.

★ SCALE DOCUMENTATION ★

SCALE DRAWINGS



1985
AIRPLANE CATALOG
\$3.00



MODEL PLANS
PHOTOS
BOOKS
REPLA-TECH
INTERNATIONAL
48500 MC KENZIE HWY.
VIDA, OREGON 97488

TIRED OF WAITING? AIRCRAFT & ARMOR

THE PLASTIC PLACE features fully personalized service - second to none! We carry the newest kits via air from Europe, AND we also carry the old "stand-bys" that the discounters don't bother with. We stock the FULL line of Micro-Scale decals as well as 3 lines of paint, lots of diorama accessories too.

NEW: Heller F-94B & T-33A with full cockpit detail. Each \$6.50. DC-4 by Heller, \$12.95! Matchbox 1/72 Twin Otter, \$6.00. Dauphin copter \$3.25.

Hasagawa decals after the New Year!!!!



Our 60 page catalog is yours for \$2.00

THE PLASTIC PLACE

6321 S. Salina St. Nedrow, N.Y. 13120
Visa & MasterCard Welcome!

MODELMANIA IS SPREADING

Add \$1.75 for shipping.

REV 1:32 Beaufighter	16.99
VACWINGS 1:72 F-90	6.49
VACWINGS 1:48 YAK-36	14.99
TES/ITA 1:72 B-58 plus	
Microscale decals	7.99
UNION 1:24 Porsche 908	8.99
TAMIYA 1:24 Porsche 956	8.99
TAMIYA 1:350 USS Enterprise----	
write for an unbelievably low price. You'll want two!	
Murphy's Scale Rulers, choice of 72/48, 25/43, 32/35	2.00
Frisket Paper, better than any other masking system, our big 8 1/2 x 11 sheet only	.75
Zona Razor Saws are only	3.99
A set of Micro Set, Sol, Gloss and Flat. All four	3.99

Over 50 Lines of Models and Acc.

The Entire Line of AEROCLUB

All Ejection Seats Always \$2.00

MODEL TECHNOLOGY, NEW HOPE DESIGN
SMER, KP, RARE KITS, DAMAGED KITS

10 Lines of Decals Including

ATP, FRED CADY and MODELDECAL

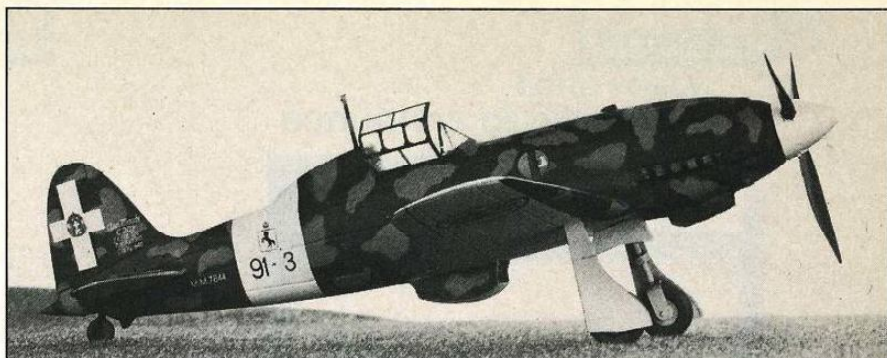
Over 20 Magazine Titles Inc. Vintage Aircraft, Aerofax, Military Modeling and Scale Models.

SEND LONG SASE (two 22¢ stamps) for our FULL INFORMATION PACKET OR to order from above, call or write on any paper. We accept checks, M/O's, VISA/MC. Formerly Bargains Galore, MODELMANIA is out to conquer the model world.

MODELMANIA

163 W. La Habra Blvd. La Habra, CA 90631
(213) 691-6232

10b FineScale Modeler



All photos, FINESCALE MODELER: A. L. Schmidt or Paul A. Erier, unless otherwise credited.

Kit: Macchi C.202 Folgore

Scale: 1/48

Manufacturer: Gull Models, distributed by War Eagle Inc., P. O. Box 255, New Baltimore, MI 48047

Price: \$17.95.

ALTHOUGH IT WAS the most famous Italian World War Two fighter, only one kit of the Macchi C.202 came close to 1/48 scale — the unavailable 1/50 scale Artiplast kit. This new Japanese vacuum-formed kit fills that gap in 1/48 scale WWII collections.

The kit contains 26 parts, including white metal parts for the prop, main wheels, and tail wheel. Rolled aluminum sheet is provided for the main gear struts. An excellent decal sheet with markings for six aircraft is furnished. The instruction sheet is also excellent and includes an exploded-view assembly diagram, 1/48 scale three-view drawing, side-view drawings of all six aircraft featured on the decal, color notes, and a reference list.

The wing is molded in upper and lower halves — this simplifies construction and

ensures proper dihedral. I found the metal prop well molded, but the rolled-aluminum landing gear struts were difficult to work with and oversize — I substituted aluminum tubing instead. Although the metal wheels lacked detail they were usable, but the instrument panel and seat were so crude that I made substitutions from my spares box. The panel lines were recessed, but too pronounced, and there were numerous flaws in the surface of the plastic — light filling and sanding took care of them. The vacuum-formed clear canopy was poor.

Despite these problems, the kit fit together well — it would be an excellent choice for a first vacuum-formed project. The sharp decals are the icing on the cake. The finished model scales well against the dimensions given in Squadron/Signal's *Macchi C.202 in Action*, but some shapes differ slightly from the drawings on the instructions. I was surprised at how little time I took to finish the model — 12 hours. Although simple to build, I recommend it to experienced modelers.

Randy Fields



Kit: No. 0360, Super Etendard

Scale: 1/72

Manufacturer: Heller, distributed by Polk's Model Craft Hobbies Inc., 346 Bergen Ave., Jersey City, NJ 07304

Price: \$6.50.

ALTHOUGH A GRACEFUL aircraft, the French Super Etendard would have experienced relative obscurity if it were not for the Falklands conflict. The Argentines used theirs to launch the French-made Exocet anti-ship missiles which sank at least two British ships.

Heller's kit contains 37 parts molded in gray and clear styrene which seemed a little

softer than usual. The kit is broken down with simplicity in mind. The fuselage is split horizontally, sandwiching the one-piece wing between the halves. After assembling and sanding seams, this split prevents loss of the more obvious details on the top of the fuselage. The one-piece horizontal stabilizer slides into a notch in the vertical tail. The recessed surface detailing is above average and an improvement for Heller; the cockpit interior is adequate but can be improved easily with spare parts and decals. Complete markings for a l'Aéronavale Française machine are provided on the decal sheet.

The parts fit well with the exception of the nose gear strut — it angles back but

ATTENTION RACE FANS:

If you are a collector, a builder, or a driver of model cars, you cannot do without.....

REH's MODEL CAR RACING PARTS LIST & REFERENCE MANUAL "FOR HO 1/32 and 1/24 SCALE SLOT CAR RACING" FOR ONLY \$6.95.

Everything manufactured in the slot racing industry today, and a few of yesterdays items that are still available, is listed in this great catalog. Tools and hobby supplies--it's all here! Over 50 manufacturers' price lists! Pick up a copy at your local hobby shop or raceway. Or send \$6.95 today to REH and we'll include the name of the hobby shop and/or raceway closest to you, where you can purchase model car racing parts and supplies. It's a wonderful hobby/sport.



MAIL THIS COUPON TODAY TO
REH DISTRIBUTING
4415 MARBURG AVE.
CINCINNATI, OH 45209

Please send me your Model Car Racing Parts List & Reference Manual for \$6.95.

My interest is in: ☐ HO ☐ 1/32 ☐ 1/24

Name

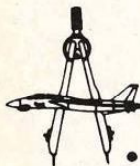
Address

City

State Zip

DETAIL & SCALE DECALS

Compare Detail & Scale decals to other decals. You will see a big difference in accuracy, detail and instruction sheet info.



FORMATION LIGHT PANELS FOR F-4, F-14, F-15, & F-18 AIRCRAFT

Sheet 0372=1/72 & 1/144, Sheet 0848=1/48th, Sheet 0332=1/32nd

DID YOU KNOW ...

That the three segment light panel on the nose of the F-4 is a different size than the three segment panel on the fuselage?

That the color of these panels is a very pale yellow, not the dark yellow or yellow-green seen on most decal sheets?

That Detail & Scale has released decal sheets that have been color matched and sized exactly from the real thing?

Each sheet has a solid color block for making wing tip lights.

Detail & Scale helps you make your models more accurate!!!

DISTRIBUTED EXCLUSIVELY BY AEOLUS/DEALER INQUIRIES INVITED

See Detail & Scale decals at your local hobby shop. If your local hobby shop does not have Detail & Scale decals, order direct from Aeolus Publishing. Decals are \$3.50 each, plus 25¢ each for postage and handling. Mail your order to: **AEOLUS PUBLISHING, P.O. BOX 2643, VISTA, CALIFORNIA 92083**

Please send me the following

☐ 1/72 & 1/144th Sheets

☐ 1/48th Sheets

☐ 1/32nd Sheets

NAME (Please print clearly!!)

ADDRESS

CITY STATE ZIP

Also New ...

Air Force Tail Codes & Serial Numbers, with the correctly proportioned small & large numbers, enough for several models.

☐ 0472, 1/72nd & 1/144 black

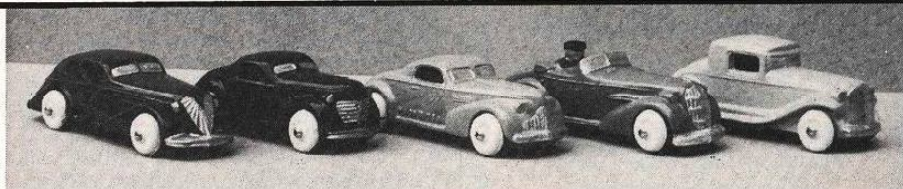
☐ 0572, 1/72nd & 1/144 white

☐ 0948, 1/48 black

☐ 1048, 1/48 white

1930's DIMESTORE Vehicles & Soldiers

MANUFACTURED FROM
ORIGINAL MOLDS
HOLLOW CAST IN A SPECIAL
WHITE METAL LEAD ALLOY



Now, the American Dimestore Figures that were so popular years ago are once again available for your collecting pleasure. A full line of Vintage Autos & Trucks with white rubber tires, 3 1/4" WWI Doughboys, Santas, Ice Skaters & Skiers, repair & replacement parts. All manufactured & sold direct to Modelers & Collectors. Send for your catalog today!



FSM

VINTAGE CASTINGS, INC.

127 - 74th Street North Bergen, N.J. 07047
(201) 861-2979

Enclosed is \$1.00, please send me the NEW 10 pg. Vintage Castings' 1983 Dimestore Catalog by First Class Mail.

Name

Address

City, State, Zip



**LITTLE
GENERALS**

Canadian Mail Orders!

One of the largest selections of
plastic models, books, decals and lead figures
available in Canada

"Send your request or inquiries to our retail
location with self-addressed stamped
envelope"

No. 9 South Centre Mall,
100 Anderson Rd. S.E.,
Calgary, Alberta T2J 3V1
Tel. (403) 271-0662.

Lencraft

Our SPECIALTY is out of production & hard
to find Aircraft-Ships-Armour-Decals

- | | | |
|-------------|----------|--------------|
| • ITALERI | • FROG | • AIRFIX |
| • MATCHBOX | • NOVO | • US AIRFIX |
| • HAWK | • ESCI | • MPC AIRFIX |
| • VACUFORMS | • REVELL | • VEB |
| • HASEGAWA | • KP | • HELLER |

Free search service for those wanted kits.
Monthly hot sheet mailing.
Send large SASE for list.
P.O. Box 8010, CALABASAS, CA 91302-8010

1st Armored Model Supply Company

Mail Order Only

HEADQUARTERS FOR SUPER-DETAILERS AND SCRATCHBUILDERS

1984 catalog available - \$3.00

Grillpak • Polyrod • Nuts • Bolts
Scratch-Strip • Sheet Styrene
Wood Bases • Paints • Decals
Vacuforms • Brass Tubing
Diorama Accessories

Armor & Aircraft
(In all scales.)

TAMIYA, BANDAI, NICHIMO
ITALERI, HASEGAWA, FUJIMI
AND MUCH MORE!

For 1984 catalog send \$3.00 to:

**1st Armored
Model Supply Company**
P.O. Box 1706
New Rochelle, NY 10802

should be 90 degrees to the ground. The instructions were easy to follow, but Heller's reference to only Heller paints (unavailable in the U. S.) is a problem. The red flap no-walk area decal wouldn't settle into the detail on top of the wing.

The finished model captures the distinctive shape of the Super Etendard and scales perfectly with the dimensions given in the instructions. It was simple to build and only took 10 hours; beginners should have little trouble.
Dennis Moore



Brian Gibbs

Kit: No. 1-4409, MIL Mi 24 Hind A and D
Scale: 1/72

Manufacturer: MPC, CPG Products Corp.,
Mt. Clemens, MI 48045

Price: \$5.50.

THE AGGRESSIVE-LOOKING Russian Hind gunship helicopter is becoming a familiar sight to many aircraft enthusiasts. It is now being used by many Warsaw Pact countries, has seen service in Afghanistan, and recently has been shipped to Nicaragua. Puma helicopters, masquerading as Hinds, had a starring roll in the movie *Red Dawn*.

The MPC (Airfix) kit is the first of this helicopter. The Airfix-boxed kit from England includes parts for only the D version, but the American MPC kit has a bonus in alternate parts for the earlier (and esthetically more pleasing) A version. I built one of each. The MPC kit contains 135 parts with alternate nose transparencies, tail rotor masts, cockpit interior, and ordnance for each version. The detail is of average quality, but the missiles and launch rails are too thick.

The instructions and decals are the weak points of the kit. Some of the alternate parts aren't mentioned in the instructions; part No. 76 is a forward-looking infrared pod (FLIR) to be mounted on the inboard left py-

lon of the A version. There are two sets of rocket pod bottoms (one set for each version) numbered the same (Nos. 78, 82, 92, and 96) — the parts on the sprue with the A version parts should be used only on the A version helicopter. Some early D versions had the tail rotor on the right side as does the A version. I haven't found photos of an A version Hind with the domes on the jet intakes (part Nos. 41 and 42).

There are markings for a Czech D version only on the decals and the Czech national insignia is incorrect; it lacks the white portion. I substituted the Czech markings from an Airfix-boxed kit and used Scale-Master Russian stars on the A version.

The only fit problem I had was joining the tail rotor mast to the fuselage — this requires some filling and sanding. The finished models look right, but there may be no accurate dimensions to refer to; the Russians don't provide much information on their aircraft, but a good source is Bill Gunston's *Aircraft of the Soviet Union*.

I spent 10 hours on each model, about average for a helicopter kit in this scale. Modelers with a little experience shouldn't have any trouble building it, but beginners may be confused by the instructions and inaccurate decals.
Art Loder

Kit: No. RS 201, Anatra Anasal DS
Scale: 1/72

Manufacturer: Red Star, available from
Squadron Mail Order, 1115 Crowley Drive,
Carrollton, TX 75011-5010

Price: \$5.98.

WORLD WAR ONE aircraft are rarely the subjects of new kits these days, but Red Star has brought smiles to the faces of "kite" fans. The Anatra Anasal DS was a two-seat observation scout used by the Russians in the Great War.

The kit contains 47 pieces molded in gray and clear styrene. Interestingly, the spoked

wheels are molded in clear — painting the raised spokes silver gives the impression of see-through wire-spoked wheels. Considering the scale, the engine and cockpit interior is superb. Decals for two aircraft are included.

The instructions are printed in English only and include exploded-view diagrams. Due to the complicated radiator and strut assembly, I recommend that you read the instructions carefully. They are easy to understand, but the radiator hoses (part Nos. 31 and 32 in step 11) aren't numbered correctly in the text; the diagram is right. I had some nervous moments attaching the upper

CONTRAIL VACUFORM

York Conversion (for use with Lancaster kit).....1/72 £1.20
Vernon Conversion (for use with Vimy kit).....1/72 84
Fairley Hendon.....1/72 £2.50
Avro Lincoln.....1/72 £3.30
Saro London.....1/72 £2.80
Supermarine Scape.....1/72 £2.60
Short Singapore.....1/72 £3.20
Supermarine
Scimitar.....1/72 £2.00
Blackburn Perth.....1/72 £4.00
Airspeed
Ambassador.....1/72 £3.40
Fairley IIF.....1/72 £4.10
Fairley Gordon.....1/72 £2.80
Vickers Vildebeest/
Vincent.....1/72 £3.40
Vickers Valiant.....1/72 £5.70
Hawker Horsley.....1/72 £2.50
Blackburn Blackburn.....1/72 £2.70
Blackburn Baffin Ripon.....1/72 £4.20

NEW NEW NEW

WELSH MODELS

1/144 Scale Aircraft-vac form
Canberra B.2.....£2.29
Hunter F.6.....£1.60
Hunter T.7.....£1.60
Lightning F.6.....£2.29
Buccaneer S.2B.....£2.29
Meteor F.8.....£1.60
Jet Provost T.5.....£1.60
Hawk T.1.....£1.60
Dakota DC-3.....£3.45
Varsity T.1.....£3.45
Gannet AEW.....£2.29

AEROCLUB MODELS

Kits:
Hawker Demon/Hart.....1/48 £7.50
DHC-1 Chipmunk T.10.....1/48 £5.80
Gloster Gamecock.....1/48 £6.95
DH Gypsy Moth.....1/48 £5.25
Sopwith Pup.....1/48 £5.25
Pitts S.10 Special.....1/32 £6.30

AEROCLUB Ejection Seats

1/72 scale
(Sold in pairs)
EJ002 Martin Baker Mk.4BS.....£1.05
EJ003 Martin Baker Mk.5.....£1.05
EJ004 Martin Baker Mk.6.7.....£1.05
EJ005 Aces II.....£1.05
EJ006 Martin Baker Mk.9.....£1.05
EJ007 Martin Baker Mk.10
(Hawk).....£1.05
EJ008 Martin Baker Mk.3.....£1.05
EJ010 Martin Baker Mk.4a.....£1.05
EJ011 Martin Baker Mk.10
(S. Harrier).....£1.05

AEROCLUB Ejection Seats

1/48 scale
(one per pack)
EJ402 Martin Baker Mk.3.....£1.05
EJ403 Martin Baker Mk.4.....£1.05
EJ404 Martin Baker Mk.4BS.....£1.05
EJ405 Aces II.....£1.05
EJ406 Martin Baker Mk.9.....£1.05
EJ407 Martin Baker Mk.10
(Hawk).....£1.05
EJ408 Martin Baker Mk.10
(S. Harrier).....£1.05
EJ409 Martin Baker Mk.5.....£1.05
EJ410 Martin Baker Mk.7.....£1.05
PLUS full range in stock

AIRFIX (Discontinued)

Thunderbolt.....£1.95
Dinah.....£1.90
Sea Knight.....£2.25
FW 190.....£2.50

OLD/DISCONTINUED KITS

If you are looking for an old/discontinued kit, you can do no better than contact the Specialist — we hold good stocks of discontinued lines and unusual kits bought from many different collections — just give us a call and ask for Mr. Molton on 01-681-2428.

DEALERS ENQUIRIES FOR MATCHBOX AIRFIX WELCOME

Postage & Packing orders.....Airmail
Order \$10.00.....\$4.00
Order \$20.00.....\$6.00
Order \$50.00.....\$10.00

RIC Large S.A.E. for List



MIL SLIDES

106 Selsdon Road

South Croydon, Surrey CR2 6PF, England.

Telephone order with charge cards welcome.

London 01-681-2428

BARCLAYCARD

VISA

Consolidated P2/Y2.....1/72 £4.40
AW Albemarle.....1/72 £3.70
Blackburn Botha.....1/72 £3.40
Vickers Victoria/Virginia
Valentia.....1/72 £12.00
Handley Page
Harrow/Sparrow.....1/72 £4.60
Bristol Bombay.....1/72 £4.50
Handley Page HP.42.....1/72 £8.20
BAC TSR.2.....1/72 £4.20
BAC TSR.2.....1/48 £5.60
Vickers Warwick.....1/72 £5.80
Short Rangoon/
Calcutta.....1/72 £9.00
Fairley Spearfish.....1/72 £4.00
Short Sturgeon.....1/72 £4.70
Short Seawew.....1/72 £3.50
Petyakov PE.8.....1/72 £6.00
Struts.....71
Rods.....48
Tubes.....66

AIRFIX 1/72nd scale:

A-40 Skyhawk.....£1.14
AW Seahawk.....£1.14
Hawker Typhoon.....£1.14
Mitsubishi Zero.....£1.14
Hawker Siddley Gnat.....£1.14
Grumman Wildcat.....£1.14
Curtiss P-40E Kittyhawk.....£1.14
Bell P-39Q Airacobra.....£1.14
Westland Scout.....£1.14

NEW OR RE-ISSUED KITS

Tamiya
1/48 Lancaster.....£18.99
Mitsubishi Zeke.....£4.80

Hasegawa

1/72 SR-71 + D-21.....£12.99
F-20 Tiger Shark.....£2.99
Jaguar GR.1.....£3.49
F-15E.....£5.99
Harrier GR.3.....£3.49
Jaguar T.2.....£3.49
F-4E.....£9.96
F-4EJ.....£9.95
Weapons Set C3.....£5.95

Airfix

1/72 Vulcan.....£6.95
Hunter FGA.9.....£1.40
Firefly.....£1.40
Roland C.II.....£1.40
Ilmor K.25.....£2.25
Mil-24.....£3.85
B-1.....£11.99
P-61.....£2.95
P-47D.....£1.40
TBM-3 Avenger.....£2.25
Zero.....£1.10
Hurricane 2c.....£2.25
Dominie.....£2.25
Mustang.....£2.25

Italeri

1/72 B-58 Hustler.....£6.75
BR.20.....£2.25
C-130 'Fat Albert'.....£9.95
VF-12.....£9.95

Aero Club

1/48th Gnat T.1.....£5.25

Contrail

B-32 Dominator.....£8.00

Rare Planes

1/72nd Learjet.....£4.00

Matchbox

1/72nd Dauphin 2.....£1.00

Heller

1/72nd Super Etendard.....£2.75
Lockheed T.33.....£2.75
Lockheed F.94B.....£2.75
Etendard 4M.....£2.75
DC.6B Super Cloud
Master.....£5.75
DC.6B Civil Security.....£5.75

ESCI

1/72nd F.5A.....£2.75
F.5B.....£2.75
F.5C/RF.....£2.75
1/12th F.16 Cockpit.....£7.95
F.104 Cockpit.....£7.95

Airfix

1/48th AH.64 Apache.....£5.85

Monogram

1/72nd F7F Tiger Cat.....£5.69
F-82 Twin Mustang.....£7.69

RARE-PLANE detective

125 WHITE HORSE PIKE
HADDON HEIGHTS, NJ 08035
(609) 546-7079

Our Bi-Monthly
Illustrated Report
Lists Dozens of
Out-of-Production and
Collectors' Kits in Every Issue!

ONE YEAR SUBSCRIPTION ONLY \$6!

KIT COLLECTORS' CONVENTION!

SUNDAY, APRIL 14TH • 10AM - 4PM

MONTICELLO MOTOR LODGE • EXIT 3N NJ TURNPIKE • BELLMAWR, NJ

OVER 50 DEALERS' TABLES OF COLLECTORS' KITS & MORE!

FREE ADMISSION WITH ADVANCE REGISTRATION!

CALL OR WRITE FOR INFORMATION, REGISTRATION OR DEALERS' SPACE!

RARE-PLANE DETECTIVE WELCOMES YOUR WANT AND/OR DISPOSAL LISTS!

Get a Great Buy and a Bonus With These Mascot™ Tool Sets



H860 Wood
Carving
Knives Set



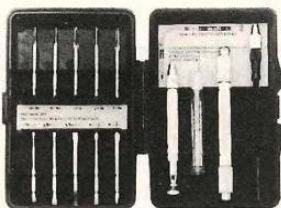
H861 H862
Woodworking
Tool Sets



H866
Modeler's Tool Set



H833 Drills/Taps/
Screwdrivers Set



We set sales records in 1984 when we introduced these outstanding precision tool sets. It was a banner year for us. So we're making '85 a bonus year for you.

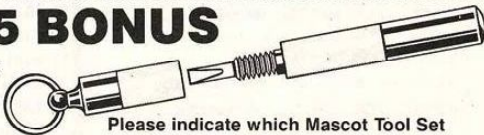
Make this the year you purchase one of these five tool sets, then use the coupon below to receive a handy, miniature precision screwdriver with dozens of hobby and household uses. It's all metal, just 2" long, with a 1/16" blade perfect for tiny screws used in a wide variety of models and electronic products.

Readers of *Fine Scale Modeler* can receive this handy precision screwdriver — ABSOLUTELY FREE — with purchase of any of these fine tool sets from your local dealer.

Attach
Sales
Receipt
Here

YOUR '85 BONUS

An all-metal miniature precision screwdriver.



Complete the form below, attach receipt, signed by the retailer from whom the set was purchased, and send to Mascot, Carlstadt, N.J. 07072.

Please indicate which Mascot Tool Set you purchased:

☐ H833 ☐ H860 ☐ H861 ☐ H862 ☐ H866

Your Name

Name of Store

Store Address

Home Address

City

State

Zip

MASCOT™
PRECISION TOOLS

Offer Expires December 31, 1985.

P.O. Box 243FS • Carlstadt, New Jersey 07072

May/June 1985 10e

IN OHIO...

...Adult modelers
shop with us.

ARMOR • AIRCRAFT
DECALS • BOOKS
TOOLS • MINIATURES
FOREIGN MAGAZINES



STRETE HOBBIES



3655 Sullivant St., Columbus, OH 43228

ARROW HOBBIES



2273 Hazellynn Place
North Vancouver, B.C.
Canada V7J 2R9

DISCOUNT PRICES

- Aircrafts • Vacuforms
- Armor • Decals
- Ships • Paint
- Science • Books
- Fiction

CATALOG \$1.50

VACUFORMS



WHITE EAGLE

1/72 DOUGLAS B-18A	18.95
1/72 BOEING B-50D	21.95
1/72 BOEING C-97	22.95
1/72 BOEING KC-97L	22.95
1/48 BEECH C-45	18.95
1/48 RYAN L-17	9.00

CLEAR PLASTIC

24 (020) INDIVIDUAL PRE-SCRIBED
PIECES FOR MATTEL VACUFORM 4.00

SHEET STYRENE-WHITE

24 (020) INDIVIDUAL PRE-SCRIBED
PIECES FOR MATTEL VACUFORM 3.00

PLASTIC CEMENT

WELD-ON #3 1.75

POSTAGE & HANDLING

UP TO \$20.00 \$2.00

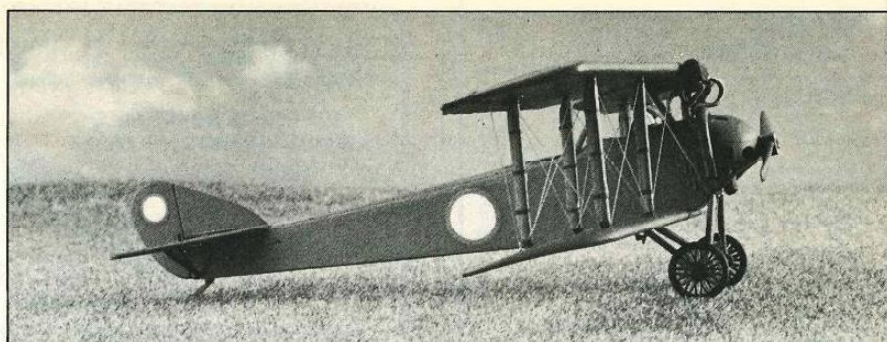
\$20.00 & UP \$2.50

MICHIGAN RESIDENTS ADD 4% SALES TAX

FOR CATALOG, SEND SASE.



WHITE EAGLE VACU-FORM
P.O. BOX 1834
DEARBORN, MICH. 48121



wing to 11 wobbly struts, but once the glue dried the assembly was rock steady. I found it easier to attach the radiator and pipes after installing the upper wing.

The decals were poorly printed so I substituted Russian cockades from Americal/Gryphon sheet No. 11. The finished model scaled close to the dimensions in Kenneth Munson's *Bombers Patrol and Reconnaissance Aircraft, 1914-1919*, but there was no gun for the rear-seat observer. The finished model looks good and is a welcome addition to my WWI collection. This project took 16 hours to finish. Like any biplane, the spindly struts and rigging will be trouble for beginners, but experienced modelers will enjoy the change from Phantoms and F-16s.

Stephen R. Gilbert



Kit: Convair 340

Scale: 1/144

Manufacturer: Airliners America, available from ATP, 3014 Abelia Court, San Jose, CA 95121

Price: \$15.00.

ALTHOUGH THE CONVAIR 340 never earned the nostalgic affection bestowed on the DC-3, it was one of the best all-around piston-engined airliners built. Many 340s and 440s were converted to prop-jet 580s and 660s and are still in service with major airlines. This is actually an Atlantic Models kit made by Helio Belasario and packaged with decals by ATP.

The fuselage, wing, and horizontal stabilizer are solid expanded polyurethane foam with surprisingly good exterior detail. The propellers, landing gear, and gear doors are molded in clear styrene. The instructions describe the special handling and modifications that need to be made, but do not have assembly diagrams. A color photo of a built-up model is pasted to the cover of the box. The North Central Airlines "Super Northliner" decals are excellent, although the bird logo seems misshapen.

Although the molded-in detail is good, the

fuselage on my model suffers from a bad mold register; the mold halves didn't line up, producing a step on the top and bottom. The large sprue stubs must be carefully carved away from the foam pieces. Cutting into the foam is easy, but it reveals numerous bubbles that must be filled with putty or gap-filling super glue. Some foam material must be removed from the fuselage behind the wing or weight implanted ahead of the wing to get the model to sit on its gear. I used super glue to assemble the model, and I had to use filler at the wing/fuselage and horizontal stabilizer/fuselage joints.

The plastic gear can be used after being cleaned up, but I found the propellers poorly molded — I substituted props from an Entex 1/100 scale DC-3. The trailing edge of the wing is too thick, but correcting this problem is tricky; the foam crumbles if it is filed too thin.

The completed model compares well with the dimensions in Arco's *An Illustrated Guide to the World's Airliners*. Despite the small number of parts, it is not an easy kit to build. I took 10 hours finishing it and I'm happy with the model. It's got a special spot on my shelf full of airliners. Dave Hogston

FSM

Enjoy all the challenges and satisfaction of scale modeling! Subscribe!

You can enjoy all the challenges of scale modeling, all the satisfaction of creating realistic, superb models – and you can improve your modelbuilding skills – with FINE-SCALE MODELER as your guide!

In FSM, you'll discover scores of new modeling projects – for building miniature armor, aircraft, ships, autos and trucks, figures, and dioramas – that will provide you with hours of modeling enjoyment.

You'll learn the modeling techniques used by North America's finest modelbuilders. You'll discover the research data – the razor-sharp scale plans, full-color renderings, and crisp photos – you need to create historically accurate, award-winning models.

And you'll find the product news and reviews you need to keep up-to-date on the hobby.

Make your scale modeling exciting, challenging,



rewarding – make your scale modeling the best it's ever been! Subscribe today, save compared to newsstand prices, and FINESCALE MODELER will arrive right at your doorstep!



Model by Glenn Kreinus.
©1984 Kalmbach Publishing Co.

Treat Your Eyes to the STUDIO SPEC™ Magnifier Lamp

Now available at the low price of only \$59⁹⁵

A small price to pay for the long range benefits of this high quality Illuminated Magnifier Lamp. The STUDIO SPEC lamp offers comfortable, shadow-free illumination for your work area. The ideal light source for repairs, woodworking, drafting, model making, artwork and more. A 22 W circular, daylight fluorescent bulb (included with your lamp) and a full 5" polished, distortion-free glass magnifier (X3) highlight your most intricate handiwork. This UL listed design includes steel construction, spring balancing and an extra long 45" reach.

Available in chocolate brown or ivory. Only \$59.95 each. Buy 5 or more for the low price of \$54.95 each.*

Order today! (Order No. MX114).

Special Bonus! With your purchase of one or more Magnifier Lamps, order our LTS103 Bench Lamp for only \$10.95 each. (Plus \$2.80 ea. shipping). UL listed to 100 W with porcelain socket and mounting brackets.

ORDER TOLL FREE

for fast delivery on credit card orders call:

1-800-423-5336

In Calif. call:

1-800-382-3663

Local Calif. call:

818-701-5848

Exclusive One Hour Shipping



A DIVISION OF ALLIANCE RESEARCH CORPORATION
20120 Plummer Street
Chatsworth, CA 91311



*Please include \$5.00 ea. for shipping in the continental USA.

Qty.	Order No.	Color	Price	Shipping	Ext.
_____	82-MX114	_____	\$59.95*	\$5.00	_____
_____	82-LTS103	_____	10.95	2.80	_____
_____	82-MX12-4R	Replacement bulb for MX114	5.95	2.00	_____

☐ MasterCard ☐ VISA # _____ Exp. Date _____

☐ Certified Check / Money Order _____ Signature _____

Name _____ (Please print)

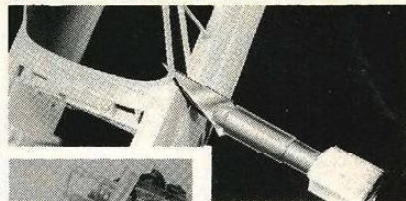
Address _____

City _____ State _____ Zip _____

*Only \$54.95 for 5 or more.

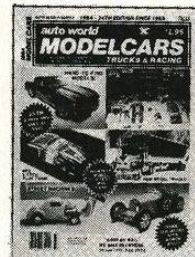
AMAZING TOOL!

SLICES PLASTIC LIKE BUTTER



INFLECTS BATTLE DAMAGE ON PLASTIC WAR MODELS

"Of all the more advanced tools you could get, none is better for making customizing easier"...Dennis Doty, master modeler/author of "The Complete Book of MODEL CAR BUILDING".
No. 28-225 AUTOCUTTER Hot Knife with Battle Damage Tips, \$14.95 plus \$2.00 handling.



NEW MODEL CARS, TRUCKS, SLOT RACING CATALOG

The "A to Z" catalog of AMT, MPC, Monogram, Tamiya, Pochoer & more. Scratch supplies and decals.
130 pages, 35th Edition, \$3.00 pp.

auto world

701 N. Keyser Ave. / Dept. 46
Scranton, PA 18508

Great airbrushing is for the birds. The Binks birds.

The Raven and Wren will do just about anything an artist or craftsman will want to do. And, do it easier.

That's because they're precision engineered for great performance. And because they're made with the finest materials available. (We even made them to be serviced in the field, by you.)

They're strong, versatile, and reliable... the only airbrushes you'll ever need.



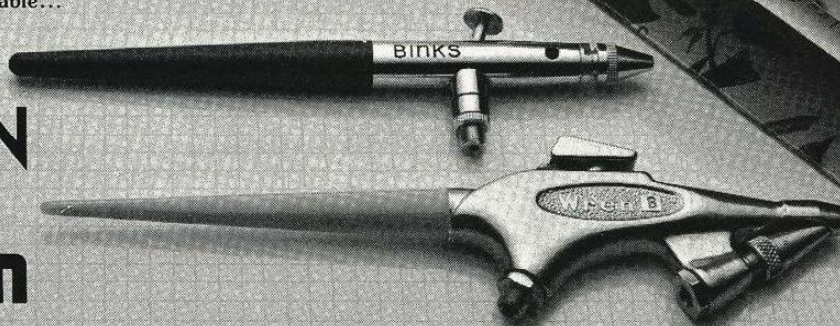
The double-action



The single-action

The Raven airbrush...for photo retouchers, artists, animators, architects, and fine model builders.

The Wren airbrush...for hobbyists, background work, auto refinishers, and general industry. A great choice for your first airbrush.



Binks offers complete airbrush outfits, air compressors, oil and water traps, air regulators, hose, canned propellant, and more.

For more information on our complete line, write for brochure A59-12 FS

Binks Manufacturing Company
9201 W. Belmont Ave., Franklin Park, IL 60131

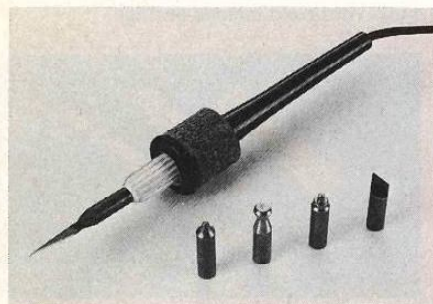
BINKS

Binks is a registered trademark of Binks Manufacturing Company

FSM invites manufacturers, importers, and distributors to submit product samples. Information on new-product announcement and review policies is available from FSM Update, FINESCALE MODELER, 1027 North Seventh Street, Milwaukee, WI 53233.

FSM readers should check their local hobby shops for the items in this column before writing directly to the manufacturers.

FINESCALE MODELER staff photos by
A. L. Schmidt and Paul A. Erlar



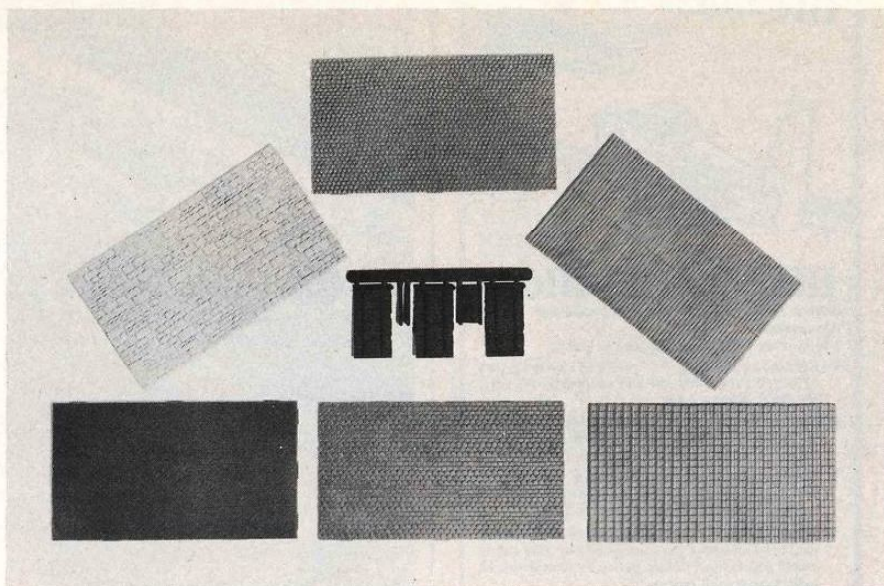
Hot knife

Auto World, 701 North Keyser Avenue, Scranton, PA 18508, offers the Autocutter hot knife with a variety of tips for \$14.95; add \$2.00 for postage and handling. It comes with a six-foot cord and four extra tips: a stainless steel cutting tip to slice through plastic; battle damage tip for military models; bullet hole tip for simulating shell-pierced detailing; and welding tip for joining plastic. Also included are instructions for cutting, welding, and modeling battle damage.



Acrylic paints

More than 72 colors of water-soluble acrylic paint are available from The Armory, 4145 Amos Avenue, Baltimore, MD 21234. The suggested retail price of each 1-ounce jar is \$1.39. Also available are 16 silk and satin colors, sold in sets of 8.



Building construction materials

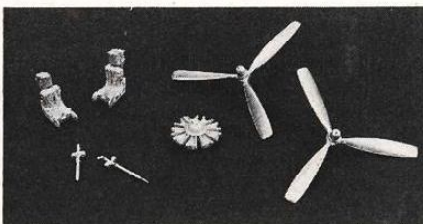
Wills Finecast, Lower Road, Forest Row, Sussex RH18 5HE, England, sells a wide variety of styrene building construction materials for scale modelers. The line includes

clapboarding, cobblestones, fencing, paving, stonework, tiles, brick walling, and wood planking. Write to the manufacturer for prices and information about overseas postage.



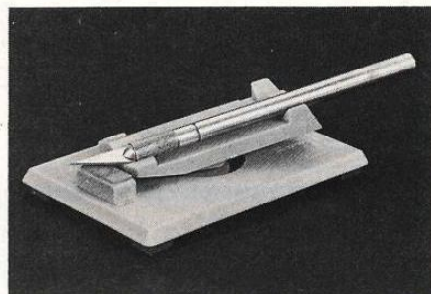
Tweezers

The Blue Line Company, P. O. Box 737, Bettendorf, IA 52722, has introduced Miracle Point tweezers. The Miracle Point, made of polished surgical steel, is guaranteed to maintain optimum strength and sharpness, according to the manufacturer. It comes with a plastic carrying case and retails for \$2.49.



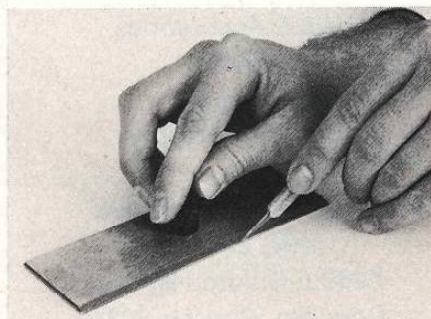
Aircraft parts

White metal aircraft accessories in 1/72 and 1/48 scales are available from Aeroclub Models, 5 Silverwood Avenue, Ravenshead, Nottingham NG15 9BU, England. Pictured (all 1/72 scale) are No. AG 009, Luftwaffe MG 15 guns; EJ 014, Martin Baker GRU7 ejection seats; P 022, Hamilton Standard Hydromatic propellers; and EP 024, Pratt & Whitney Gear Wasp 1340 engine. Send three International Reply Coupons for a catalog.



Straightedge and sharpener

Micro-Mark, 24 East Main Street, P. O. Box 5112, Clinton, NJ 08809, sells a blade sharpener (above) and a stainless steel mini straightedge (below). The blade sharpener, product No. 14293, will sharpen No. 11 or No. 16 modeling knife blades. A cradle is designed to hold the blade at the correct angle for sharpening. Manufactured by The Edger of Ventura, California, it sells for \$12.95 plus \$2.50 postage. The knob-held straightedge, product No. 14162, is 6" long, 2" wide, and 3/64" thick. It sells for \$9.95 plus \$2.50 postage. Double postage costs for shipment outside the U. S.



THE VIDEO BOOK PAK



HELL'S ACES HIGH

Greatest Aerial Combat Footage ever packed into a single video cassette.

2 hours of the most violent dog-fights in history.

- **Fight for the Sky:** "Jugs, P-51's and P-38's sweep the skies of Fortress Europe. 100 mile long air armadas. FW-190's, ME 109's, against our best.
- **USAF - 50 Years:** From WWI ragwag scraps to Mig Alley & our 10-1 kills. Flying the Hump... Berlin Blockade... Inchon... F-100's, 104's, F-4 Phantoms and much more.
- **The Last Bomb:** Mustangs ride shotgun on the longest bombing raids in history! 1500 miles from Guam and Tinian to Tokyo and P-51's bloody the enemy's finest.
- **Combat Photo:** AF tribute to the Combat Cameraman. The most nerve shattering gun-camera stuff ever! Fore and aft camera pods low over Vietnam pick up the most graphic air strike footage you'll ever see.

.... Plus! a VIDEO BOOK PAK Bonus! U.S. FIGHTERS (1925-1980) by Lloyd S. Jones. 352 pages. 125 scale drawings. 350 photos. This great reference book plus all 4 great video programs...

only **\$79.95**

Specify Beta or VHS

Send to: FERDE GROFE FILMS

3100 Airport Ave., Santa Monica 90405

U.S. and Canada add \$2.50 shipping, foreign orders add \$3.50. CA res. add 6 1/2% Sales Tax. Visa & Master—include card no. & exp.

ORDER TOLL-FREE (800) 854-0561, ext. 925.

In Calif. (800) 432-7257, ext. 925.

Please mention FINESCALE MODELER when writing to advertisers

Historical Hobbies



Atlanta's Finest
Plastic Model Shop

- Plastic Kits
- Books
- Magazines
- Reference Material
- Tools & Accessories For Modelers
- Binks, Badger, Paasche Airbrushes

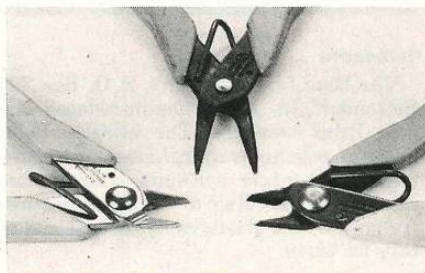
Mail Orders Accepted
(404) 455-7176

5266 E Buford Highway
Doraville, Georgia 30340



Photoetched aircraft accessories

P. P. Models, Cherry Tree Cottage, Grove View, Bristol Road, Hambrook, Bristol BS16 1RE, England, manufactures 1/72 scale photoetched metal aircraft accessories. Items available include crew access ladders, ejector seat handles and canopy mirrors, and crowd barriers. P. P. Models asks that overseas customers request a pro forma invoice before ordering.

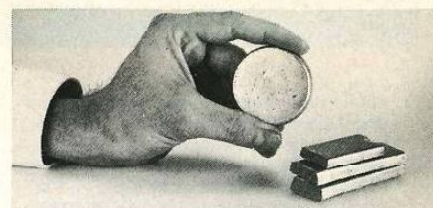


Pliers and shears

Three modeling tools available from PBL, Box 749, Chama, NM 87520, include (left) Super-Shears flush-cutting pliers, \$10.95; (center) macro-nose pliers, \$6.95; and (right) Pro-Shear flush cutters, \$5.95. PBL recommends the shears for brass, copper, and other relatively soft metals, and states that the flush cutters have an intentional overbite so the jaws sharpen themselves instead of hitting each other directly.

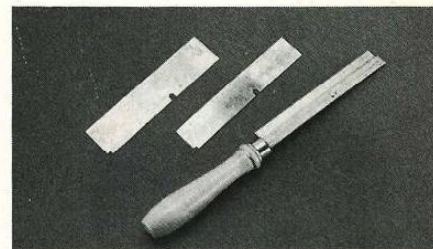
Palm trees

H & R Trains, Inc., 6996 U. S. 19 North, Pinellas Park, FL 33565, sells ready-to-plant palm trees, product No. 001-500 (right). These multi-scale plastic trees are approximately 3 1/4" high, have brown trunks and green fronds, and can be further shaped and weathered. Each package includes four trees and sells for \$3.40; UPS shipping charges are extra.



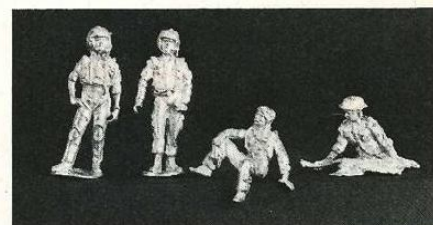
Casting metal

Bear Locomotive Co., 1361 Tuckerton Avenue, P. O. Box 265, Whiting, NJ 08759, offers a heavy alloy of lead and other metals with a melting point of approximately 158° Fahrenheit. Bearmetal-158 is packaged in 1/4 pound (left), \$4.50; 1/2 pound, \$8.00; and 1 pound (right), \$15.00. It also is available in bulk. All prices include postage.



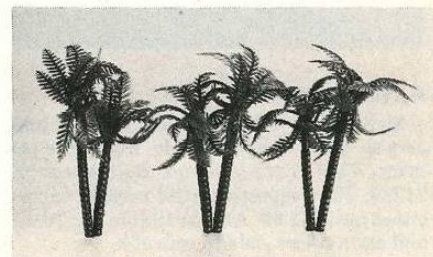
Brass backsaw

Mascot Precision Tools, 750 Washington Avenue, P. O. Box 243, Carlstadt, NJ 07072, has introduced a brass backsaw with replaceable blades, product No. H106, \$9.35. It includes a 10"-long backsaw with 3/4", 1", and 1 1/4" blades. The 3/4" and 1 1/4" blades have 34 teeth per inch, while the 1" blade has 42 teeth per inch.



1/48 scale figures

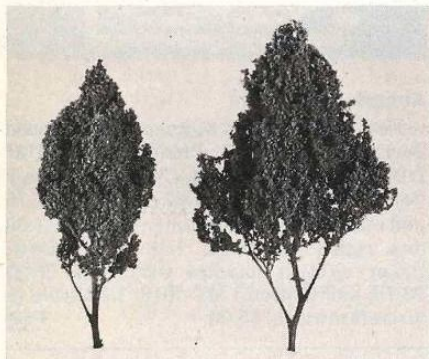
Four 1/48 scale white metal figures are available from Charles A. Muñana of Taxdir Miniatures, Casado del Alisal, 10, Madrid 28014, Spain. From left are No. A/1, USAF jet pilot, Vietnam, 1967; A/2, U. S. helicopter pilot, 1967; A/3, U. S. Navy carrier pilot, 1943; and A/4, R. A. F. armorer, 1943. Each sells for \$3.50, which includes surface shipment to the U. S. The figures do not come with painting instructions. Other planned releases are a German soldier with bicycle, 1944; Luftwaffe fighter pilot, 1944; and Luftwaffe mechanic, 1944.





Diorama accessories

Sheets of photoetched brass parts and accessories made by Scale Link of England are available from Warwinds International, P. O. Box 686, St. Louis, MO 63188. Shown are No. F41, plants and foliage (4 mm, 1/4 scale), and No. 32F1, 27 strands of barbed wire (7 mm to 9 mm, 1/35 to 1/25 scale). Each is \$6.00. The Scale Link catalog, \$2.00, also lists white metal castings and figures.



Scale trees

GSFC, 1640 North Johnson Avenue, El Cajon, CA 92020-1295, sells scale model deciduous trees from 2" to 24" tall. Packages available include "A," six trees no more than 5" tall, \$4.99; "B," two or three trees between 5" and 9" tall, \$3.99; "C," four trees between 9" and 12" tall, \$10.95; and "D," three trees between 12" and 15" tall, \$14.95. Add 10 percent for shipping, with a minimum charge of \$1.00 and a maximum of \$4.00. Write for a quote on special orders.

Decal setting solutions

D. G. Modelling Products, 8080 Langdon Avenue, Van Nuys, CA 91406, has released two types of decal setting solution (right). SuperSett contains adhesive, while SuperSett Too does not. The manufacturer recommends that SuperSett be used only under decals since it leaves a flat finish after it dries. SuperSett and SuperSett Too are available only in retail stores; the suggested price for each 1-ounce bottle is \$1.29.



54 mm French Marine

This 54 mm 1914 French Marine, product No. ME4, is included in the range of metal figures available from Bombardier Models, 23 Whitehill, Bradford on Avon, Wiltshire BA15 1SQ, England. It sells for £3.00 (approximately \$3.30); add 10 percent for postage in the United Kingdom, 30 percent overseas.



BIG DISCOUNTS

AIRCRAFT. ARMOR. SHIPS. PAINTS. BOOKS

★ **BATTLE HOBBIES** ★
P.O. BOX 184
ST. PAUL PARK, MN 55071
CATALOG & UPDATES - \$1.00

All Regular Lines Plus:

- KOKU-FAN
- WAFFEN ARSENAL
- KOOKABURRA
- MARU MECHANIC
- SUPERMODEL
- NOVO & SMER
- OGONEK

★ VISA & MC ACCEPTED ★



**MODEL
FLOATPLANE
OFFER**

Imported by Canadian Mist

Order an authentic, 1/24 scale miniature replica DeHavilland Beaver floatplane. The bright yellow model with 24" wing span comes in 26 snap-together pieces for easy assembly.

Send \$14.95 via check or money order to:

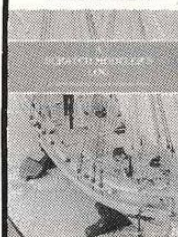
Canadian Floatplane Offer, Dept. 5305
1975 Wisconsin Avenue, Grafton, Wisconsin 53024

Residents of Alaska and Canada must add \$2.00 for shipping and handling. Please allow six to eight weeks for delivery. Offer valid where legal. Satisfaction guaranteed or money back.

AERO BOOKS

since 1939

BRAND NEW



A Scratch Modelers Log by Henry Bridenbecker. Documents 17 unusual ship models built by the author. Contains a collection of ingenious "How To's" for modelers. Nautical history buffs as well as modelers will be inspired by this lavishly illustrated book. 112 pgs. 80 full color pages. ISBN 0-8168-0014-6. Deluxe Softbound \$17.95

Colors & Markings Series

Vol. 1, **F-106 Delta Dart**
by Bert Kinzey

ISBN 0-8168-4525-5
64 pgs. 16 pgs. color,
Softbound \$9.95



Future Volumes in Colors & Markings

F-14 Tomcat by Bert Kinzey, Atlantic Coast Sqdns.
F-4C Phantom II, Part 1, Post Vietnam Markings
1974-84 by Bert Kinzey

Future Volumes in Detail & Scale

B-47 Stratojet by Alwyn T. Lloyd
A-10 Thunderbolt II (The Tank Killer) by Dana Bell
B-17 Flying Fortress, Part 3 by Bert Kinzey

FULL AERO CATALOG AVAILABLE... FREE!

AERO PUBLISHERS, INC.

329 M West Aviation Rd., Fallbrook, CA 92028

W·W·1

Aero

THE JOURNAL OF
THE EARLY AEROPLANE

SAMPLE ISSUE \$4

15 CRESCENT RD. Poughkeepsie, N.Y. 12601

For Your Model Building Enjoyment:

Fine Products For Quality Modelers

TOOLS, SAGAMI MOTORS,
DRIVE UNITS & COMPONENTS,
WHEELSETS, BRASS MODELS,
GEARS, BOOKS, METRIC
HARDWARE & MORE!



See Your NWSL Dealer or Write
Direct if Unable to Locate.

**North West
Short Line**

Box 423, Seattle, WA 98111

Have some extra kits to sell? Searching for a rare kit?

With a listing in FSM classified
advertising you can reach
more than 39,000 of your
fellow scale modelers!

See page 70 for details.



54 mm figures

King Arthur (No. C-114) and Queen Guinevere (No. C-115) are recent releases from Imrie/Risley Miniatures, Inc., P. O. Box 89, Burnt Hills, NY 12027. These 54 mm metal figures retail for \$5.95 each.



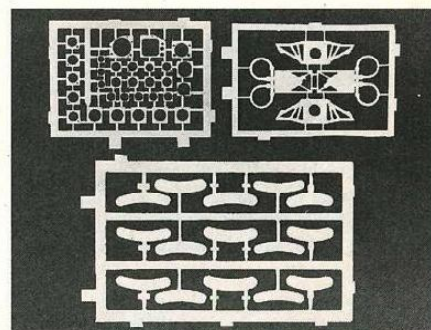
Monogram Snap Tite kits

Recent releases from Monogram Models, Inc., 8601 Waukegan Road, Morton Grove, IL 60053-2295, include two Snap Tite display kits. Stock No. 1109, a 1/110 scale SR-71A "Blackbird," comes with a display base, decals, and a Strategic Air Command logo. The 1/200 scale Space Shuttle, No. 1110, features a display base, miniature astronauts, hinged cargo bay doors, and optional payload modules. Each kit retails for \$5.00.



Paint, brushes, and brush soap

M. Grumbacher, Inc., 460 West 34th Street, New York, NY 10001, is offering Keepsake acrylic craft colors. Each 2-ounce squeeze bottle retails for \$1.50. Grumbacher's brush soap cleans and conditions any type of brush; a 3.69-ounce jar sells for \$4.95. Also shown is No. 7806-1, control-plus round detail paintbrush, \$2.50.



Aircraft detail parts

New aircraft detail accessories from Model Technologies, 15561 Product Lane, Unit D16, Huntington Beach, CA 92649, include (top left) No. MT 0016, 1/32 scale F-15, F-16, and miscellaneous instrument bezels, \$4.00; (top right) MT 0014, 1/48 scale Martin Baker ejection handles with F-15 HUD, \$2.75; and (bottom) MT 0010, 1/32 scale jet aircraft mirrors, \$5.00.

FSM

All New From Mitchell Products, Inc.—The Hobby★Vent People

MODEL KD-1: It comes Knocked Down

SAFE All heavy-gauge galvanized steel construction, fully tested, and application engineered.

PRACTICAL Ideal airbrush-spray conditions with a stable front-to-back air pattern. High efficiency, high pressure, low sound level centrifugal fan, one moving part.

DURABLE Carefully designed for years of reliable service. No fan blades to clean, belts to break, or filter to change.

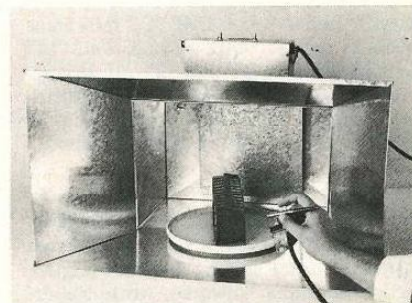
ECONOMICAL \$159.00 retail. Considering a decent pair of lungs (installed) start at \$125,000, you can't beat the price for comfort and peace of mind. Not to mention other members of your household no longer grumbling about the odor from your workshop.

Mitchell Products, Inc.

421 North Lake Street, Highway 45

Mundelein, IL 60060

312-949-1156





FROM THE EDITOR

Somebody ought to make. . . .

I'VE JUST FINISHED READING over 650 questionnaires from the first full-scale FSM reader survey. They were bound into a random sampling of the January/February 1985 issue, and were filled out and returned by FSM readers who purchase their copy on the newsstand or in a hobby shop, as well as by subscribers. My thanks to all of you.

We haven't had time to sort and compile and analyze the results yet, but I've learned a good deal about what you FSM readers want. Needless to say you don't all want the same things, and I've come away convinced no two FSM readers have identical modeling interests.

In my note on the first page of the questionnaire I said that the survey might be helpful in encouraging production of new hobby products, and near the end we provided room to write in what products you'd like to see offered. In hopes that manufacturers may read it, here's a list of the three most-asked-for items:

- A hobby-size vacuum-former. So many of you wrote this in, then added that you planned to buy one (in the question about tools), that it just has to be the most-wanted item. My guess is that the ideal machine would connect to a shop vacuum, contain its own heating element, and be able to form bigger parts than the old Mattel Vac-U-Form. A lot of us would settle for an all-new version similar to the Mattel design.
- Detail parts. Aircraft modelers want cockpit details in all scales, armor modelers want similar items, and ditto for automobile detailers. The gist of this is that non-railroad modelers want extensive lines of separately packaged parts similar to those in the railroad department.
- A U. S. M24 Chaffee light tank in 1/35 scale. True, that wasn't the only kit asked for, but it's the one that seemed to pop up most often as I unscientifically thumbed through the surveys.

I plan to pass more of your suggestions — especially those for new kits — to the manufacturers once we've tabulated the survey results. In the meantime, turn to our special staff report on new kit releases (page 6) to see what's in store for 1985.

Bob Haydel
Editor

FineScale
MODELER

NEXT ISSUE

FEATURES



Scratchbuilding a Pilatus PC-6. Ron Lowry.

The July/August issue of FSM brings a potpourri of modeling projects your way! Canadian modeler Ron Lowry starts from scratch to model the Swiss-built Pilatus PC-6 Turbo-Porter in 1/25 scale, and even if you don't have a yen to model this modern STOL "Jeep of the air," there's a lot to learn from Ron's techniques. And, Jamie Pye tells you how he modeled the one-of-a-kind F-15 "Streak Eagle" — in both 1/48 and 1/72 scales. An important aspect of the description is how he achieved a startlingly realistic multi-hued bare-metal finish.



PaK 40 RSO. Terry Sunday.

Armor modeler Terry Sunday returns to the pages of FSM with a 1/35 scale conversion that's an ideal introduction to scratchbuilding! The subject is a German 7.5 cm PaK 40 antitank gun mounted on an RSO tractor chassis, and Terry provides full-size templates for the cab parts (the rest comes from kits). Plus you'll find articles on converting a '53 Chevy and an F11F-1 Tiger, on painting and detailing a Series 77 paratrooper, and a short piece on making old tin cans for dioramas!

**ALL IN
JULY/
AUGUST
FSM!**

Paul Budzik's 1/12 scale McLaren M23

A magnificent — and complex — conversion

A CLASSIC FORMULA 1 racing car, the McLaren M23 made its appearance in 1973 and stayed competitive until early 1977, a long time for a Formula 1 car to remain in front line service. Emerson Fittipaldi in 1974 and James Hunt in 1976 drove the car to world championships.

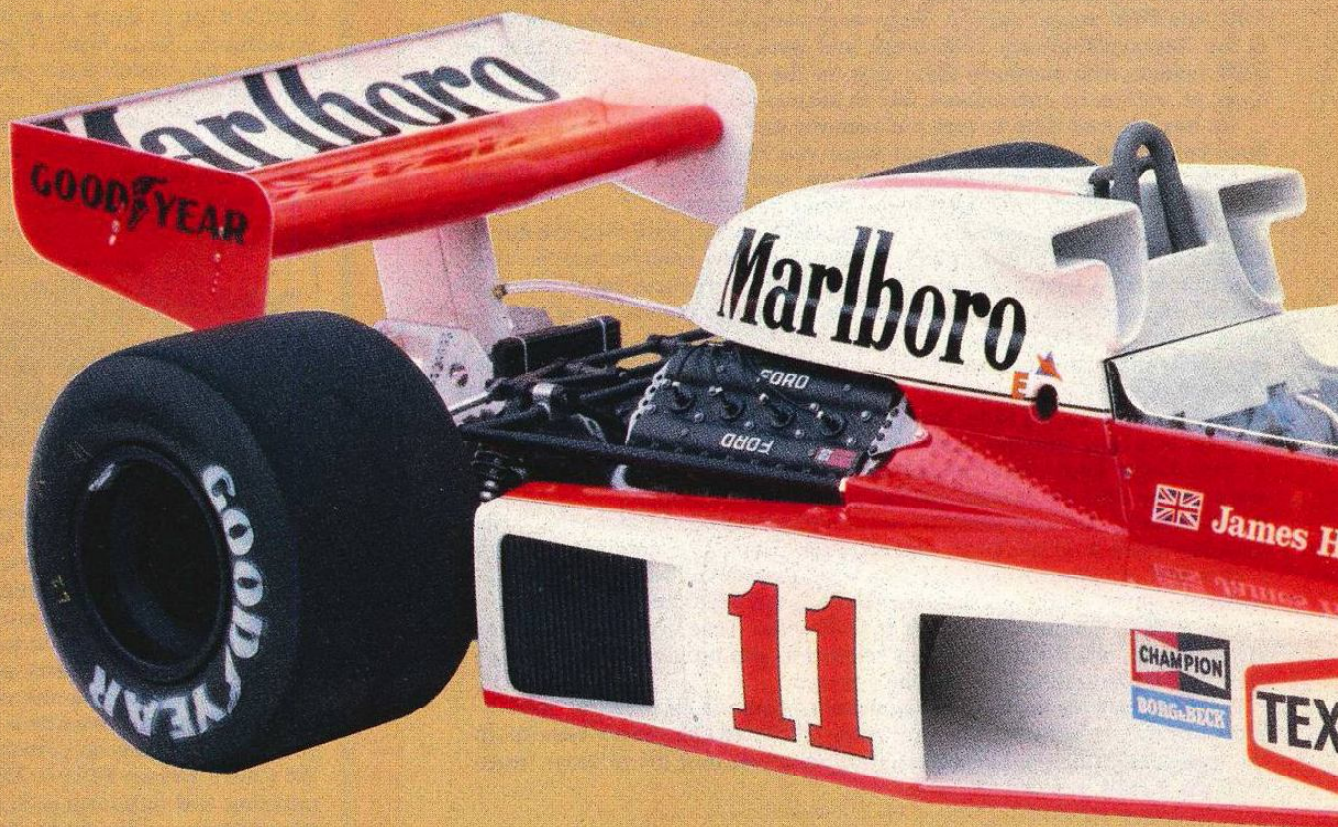
Paul Budzik of Fresno, California, built the late version of the car driven by James Hunt from a 1/12 scale Tamiya kit. Paul told FSM that he prefers 1/12 scale for single-seat racing cars because it is a good size for display, but also allows him to reproduce all the significant details.

The most noticeable differences between the kit and the version Paul modeled appear in the bodywork, the later versions having shortened noses mounting larger wings. The shroud surrounding the driver was lengthened to accommodate a front roll bar. The air box has a lower profile as dictated by a regulation change. Side pods housing the oil coolers were added, as were a modified rear wing and mounting system.

tyrate so that the depression for the mounting of the windscreen needed to be reduced in depth," according to Paul. "I did this by laying a piece of .015" styrene in the depression. This was trimmed to match the existing height of the fairing. In place of the normal mounting pins I substituted 00-90 screws so that the fairing could be drawn down snugly against the monocoque. The windscreen was mounted after painting by using .020"-diameter straight pins with their heads cut down and painted black."

Paul explained that the air box was the most difficult conversion: "I started by cementing the original air box together. I cut it down so that it had the correct side profile. A piece of sheet styrene with the correct upper outline was cemented to the top. I then cemented a piece of styrene with the correct profile to the front. The rest of the additions were done with pieces of sheet styrene."

"The outside contours of the air box were shaped to a final stage before the openings in the air box were cut. I tried to keep the use of fillers to a minimum as this part would un-



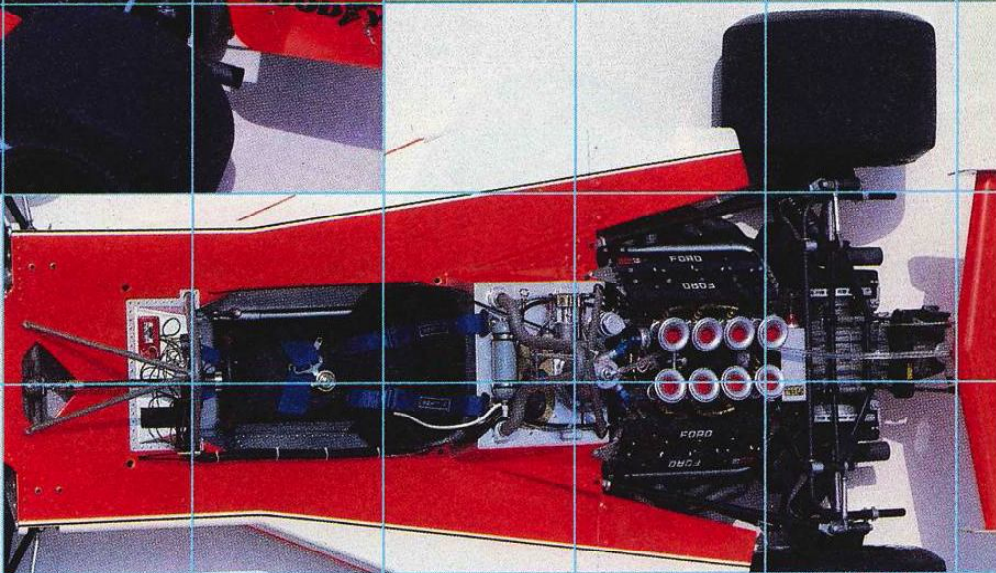
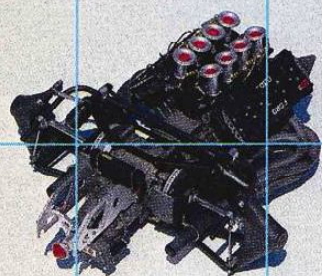
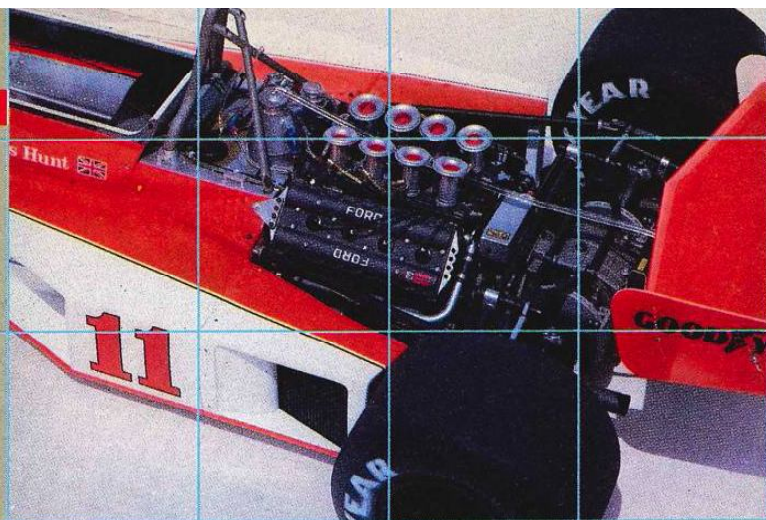
Photos by Paul Budzik

The fairing that surrounds the driver had to be lengthened to extend past the joint between the monocoque and the nose piece. Paul spliced two fairings together, but says he could have spliced in a section of sheet styrene instead. Because these joints can be fragile, he backed up the joint with a piece of .010" sheet styrene.

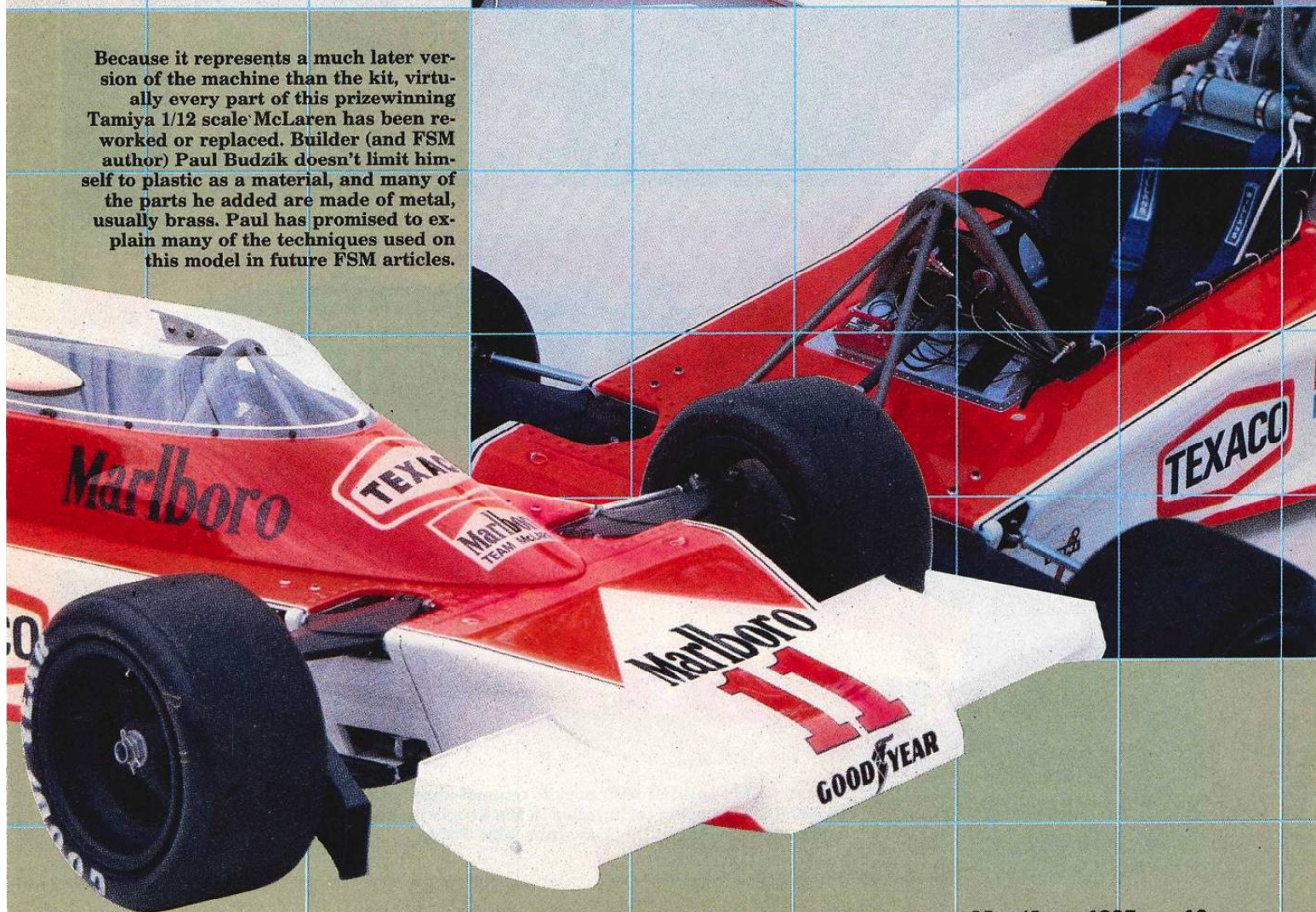
"A new windscreen was to be formed from .007" sheet bu-

dergo some flexing when taken off and on and I did not want anything to crack."

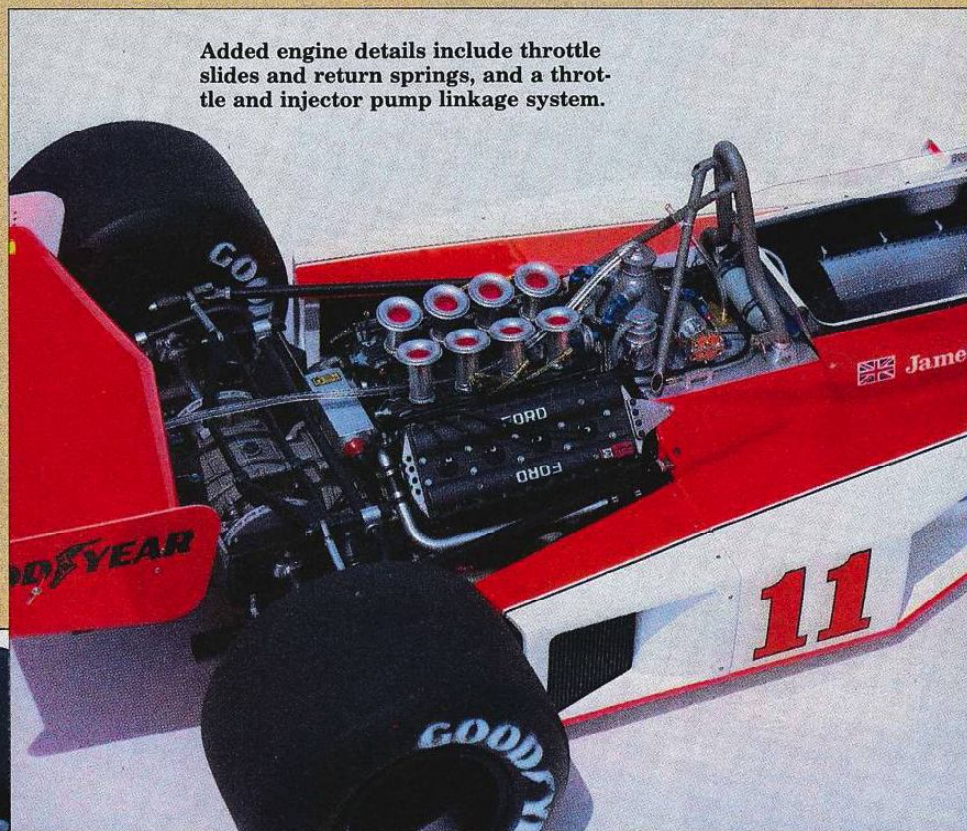
Modifications to the main part of the body included new cutouts for the front suspension and adding side pods which held the oil coolers. Paul told FSM that his assembly se-



Because it represents a much later version of the machine than the kit, virtually every part of this prizewinning Tamiya 1/12 scale McLaren has been reworked or replaced. Builder (and FSM author) Paul Budzik doesn't limit himself to plastic as a material, and many of the parts he added are made of metal, usually brass. Paul has promised to explain many of the techniques used on this model in future FSM articles.



Added engine details include throttle slides and return springs, and a throttle and injector pump linkage system.



The model is painted with acrylic enamel automotive finish. Paul described his painting techniques in his article on superdetailing 1/12 scale motorcycles in the May/June 1984 FSM.

quence for this part of the model differed greatly from the instructions. "I had already determined that if the seam between the upper and lower body halves was to be effectively hidden the car halves would have to be assembled before painting," he said. "If the instructions were followed, all the internal structures would have to be fitted in prior to cementing the two halves together, which would make for a nightmare of masking. I found it easier to assemble the two halves, then fit the other parts in later. This can be done by simply removing a few locating pins."

Paul painted the entire car white with acrylic enamel made by Ditzler for use on automobiles. After this was set he masked off and painted the Dayglo red areas of the car. He used Martin Senour fluorescent red that he emptied out of a spray can, then airbrushed.

After Paul applied all the decals and transfers he gave the entire car several coats of clear gloss, sanding with 600 wet sandpaper between coats.

The front roll bar and instrument panel were fabricated from brass rod, sheet, and machinings. The rear roll bar was formed in a similar way except that it did not require the mounting of an instrument panel.

Paul reworked the entire front suspension and most of the rear suspension, adding many scratchbuilt metal parts. All assembly and soldering was done on a jig he made to simulate the correct position of the components; the jigs were made on a block of aluminum. The mounting points



Formula 1 race car cockpits are a lot less cluttered than those of aircraft, but this one looks as if you could strap yourself in and drive it away.

were anchored by brass machinings screwed into the block.

"I got tired of making so many suspension rod ends," Paul told FSM, "so I made a variety of different sizes and a rubber mold so they could be mass-produced by lost wax castings. This way I select the proper size end and drill a hole in the end of a rod of the correct diameter to accept the end fitting. The two are soldered together and I have a rod."

"The engine is as fully detailed as I could make it. Lost wax castings were used for the injectors, hose fittings, wire connectors, and plug covers. A new injector pump and distributor assembly were made by repositioning the ignition box to the front of the transaxle housing."

Paul states that a seasoned observer of Ford-Cosworth engines will note a few differences in the way the engine components are set up. The ignition box was repositioned and the last injector of each bank has been turned 180 degrees to have its fuel pickup on the inside. This was done to facilitate the aerodynamics of the rear portion of the air box.

Attachment of the throttle cable is internal to the banks of injectors as on early DFVs rather than to an outside mounted lever as was usually seen.

Paul scratchbuilt the rear wing mount from brass similar to the way he made the wing endplates, taped together during the machining processes so they were identical. The wing support was anchored in place with four press-fit bolt head pins.

FSM

The model won the Judges' Best Automobile award at the 1984 IPMS/U. S. A. national convention.





The finished Czechmaster kit exhibits the unusual design of the Leduc 022. Note position of the cockpit and long, cylindrical fuselage.

Building your first epoxy-resin aircraft kit

Modeling the Leduc 022 in 1/72 scale

BY H. SCOTT EDWARDS

MODERN MODEL KITS are produced in a variety of materials — injection-molded or vacuum-molded styrene, metal, wood, and the new-comer — epoxy resin.

One of the pioneers of epoxy resin kits is a Czechoslovakian firm, Czechmaster. This is a group of modelers who have formed their own cottage industry

producing resin castings of unusual aviation subjects. Some of these resin kits have been used as masters to make the molds for vacuum-formed kits of these rare subjects.

Unfortunately, Czechmaster resin kits are produced in small quantities — only 30 or 40 kits are cast from each mold. The best way to get them is to correspond with modelers in Czechoslovakia, many of whom are willing to

trade for kits from the U. S. (Some Czech modelers advertise in the classified section of FSM and IPMS/U. S. A. Update.) Also check kit collector clubs such as Kit Collector's Clearinghouse* (KCC) and Kit Collectors International.**

This article tells how I built the Czechmaster resin kit of the Leduc 122. The only other model of this aircraft was produced by Maquettes Ariennes Francaises (MAF) in 1/96 scale, and is now long out of production.

Experimental ramjet. The French Leduc 022 was designed by René Leduc as a supersonic, ramjet-powered interceptor. It was developed from his earlier straight-winged Leduc 010 and 021 experimental ramjets. Unlike the earlier designs, which were air launched from a mother plane, the 022 was able to take off under its own power with the aid of a SNECMA Atar D.3 turbojet engine installed within the body of the ramjet.

The Leduc 022 made its maiden flight on December 26, 1956. By March 1957, it had completed more than 30 test flights on the power of the Atar alone. However, cuts in the French military budget in 1957 brought further flights and development to a halt. I haven't found any evidence indicating that the Leduc 022's ramjet was actually tested in flight.

What you get in a resin kit. I got my kit from a stateside collector who generously provided me with photocopies of Tom Bauer's 1/72 scale 3-view drawings. These and the information I found in the 1957-58 edition of *Jane's All the World's Aircraft* were the only references I had on the aircraft — the kit

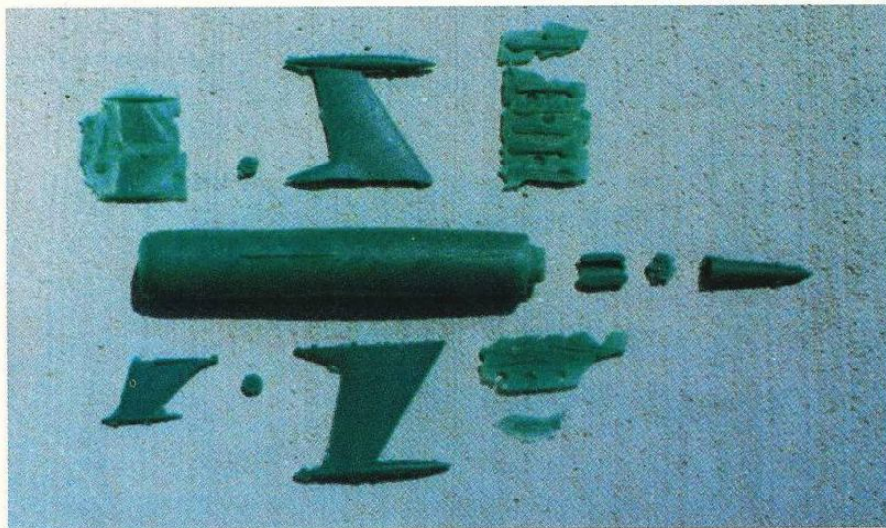


Fig. 1. The parts are molded in a translucent green epoxy resin. Note all small parts are molded in a sheet of flash. Scott used a hot knife to cut the small parts out.

*Kit Collector's Clearinghouse, 3213 Hardy Drive, Edmond, OK 73034.

**Kit Collectors International, P. O. Box 38, Stanton, CA 90680.



Fig. 2. Resin kits sometimes have holes caused by gas bubbles formed when the epoxy cures. Scott filled the larger holes with Elmer's Professional Carpenter's Wood Filler, and the smaller ones with Squadron Green Putty.

didn't have instructions or decals.

Most of this 27-part kit is molded in translucent, dark green epoxy resin, Fig. 1, which is noticeably harder and more brittle than styrene used in most injection-molded models. The cylindrical cockpit canopy is vacuum-formed from transparent acrylic plastic.

Considering the molding method, the parts are superbly detailed with fine engraved panel lines. Other details include an instrument panel, interior of the main wheel wells, and a combustion chamber in the exhaust nozzle. The tail, wings, nose cone, and fuselage are individual solid pieces. The landing gear struts, pitot tube, undercarriage bay doors, and so forth are molded together in a thin piece of molding flash.

Preparing the parts. My first step in preparing the parts for assembly was to remove all the molding flash. I used jeweler's files on big parts like the wings and fuselage. I used a hot knife made from a No. 11 X-acto blade in a soldering iron to cut the small parts out of the flash sheet. I first tried scoring around them and snapping them out of the flash sheet vacuum-formed style, but the parts wouldn't break away on the scored lines.

I kept all the flash to test the compatibility of various glues and paints. Ordinary styrene cements won't work on epoxy resin, so I used cyano-

acrylate cement (super glue) to build this kit; all of the enamel paints I tried worked fine.

One of the drawbacks to resin kits is the many tiny bubbles on and just below the surface of the parts. These occur as the resin cures and must be filled for a good finish. To make them easier to fill, I enlarged the holes with an X-acto knife, much like a dentist drills out a cavity in a tooth. I filled the big holes with Elmer's Professional Carpenter's Wood Filler,* Fig. 2, and the smaller ones with Squadron Green Putty.** Both adhered well to the resin.

When the putty was dry, I wet sanded the parts with successively finer grades of wet-and-dry sandpaper, beginning with 400-grit and ending

*Borden Inc., Columbus, OH 43215.

**Squadron Mail Order, 1115 Crowley Drive, Carrollton, TX 75011-5010.

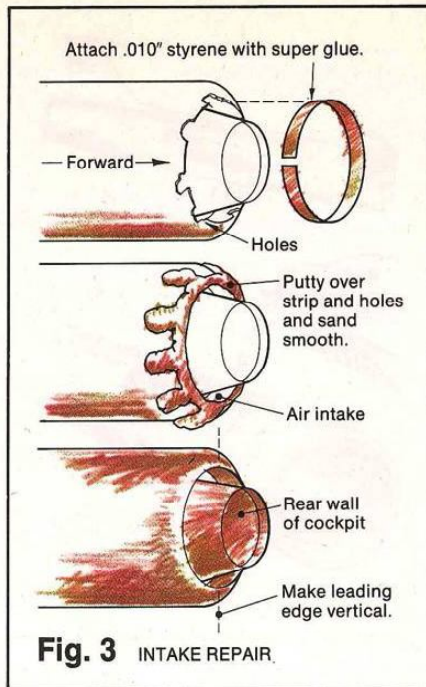


Fig. 3 INTAKE REPAIR.

with fine Flex-i-Grit.*** I repeated this process of filling the holes with putty and wet sanding until they were no longer visible. This was the most time-consuming step in this project. Although I don't worry about panel detail in this scale, some modelers will want to re-scribe the lost detail before painting.

Besides being riddled with holes, the leading edge of the air intake was rough and uneven. When viewed in profile, the edge of the intake wasn't vertical, instead slanting back at the

***Flex-i-Grit, K & S Engineering, 6917 West 59th Street, Chicago, IL 60638.

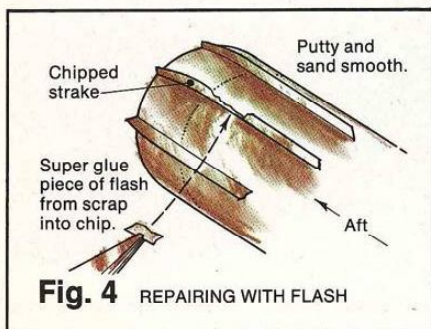


Fig. 4 REPAIRING WITH FLASH

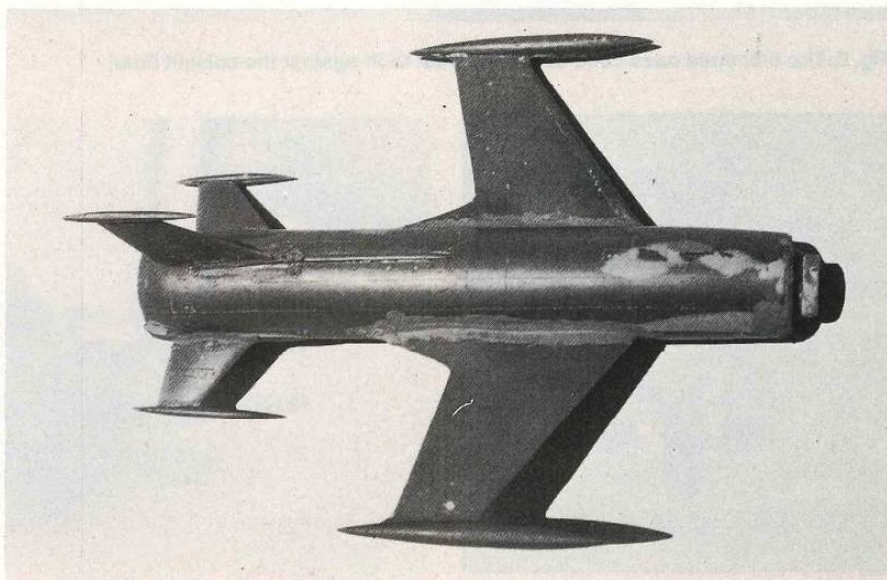


Fig. 5. The wings and tail planes are attached to the fuselage and the seams filled with Squadron Green Putty.

Place model on pencil just under main landing gear attachment point.



Fig. 6 BALANCING THE MODEL



Fig. 7. The cockpit floor and consoles are attached to the forward fuselage. Note repaired intake leading edge.

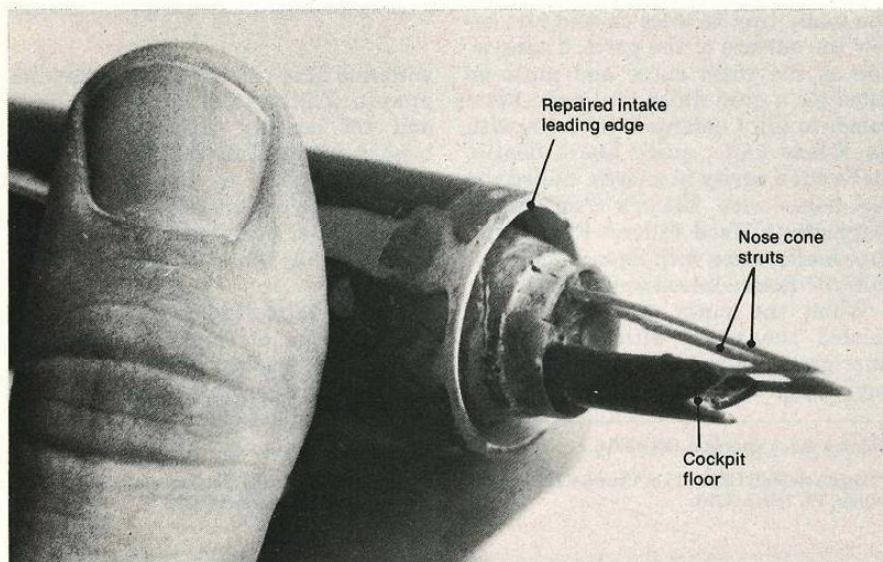


Fig. 8. The V-shaped nose cone struts were cut to fit against the cockpit floor.

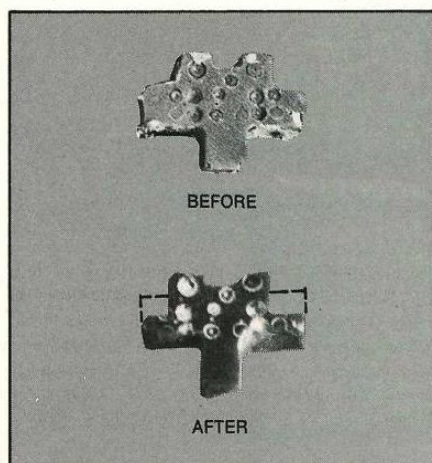


Fig. 9. Scott had to trim the instrument panel to fit inside the strut apexes.

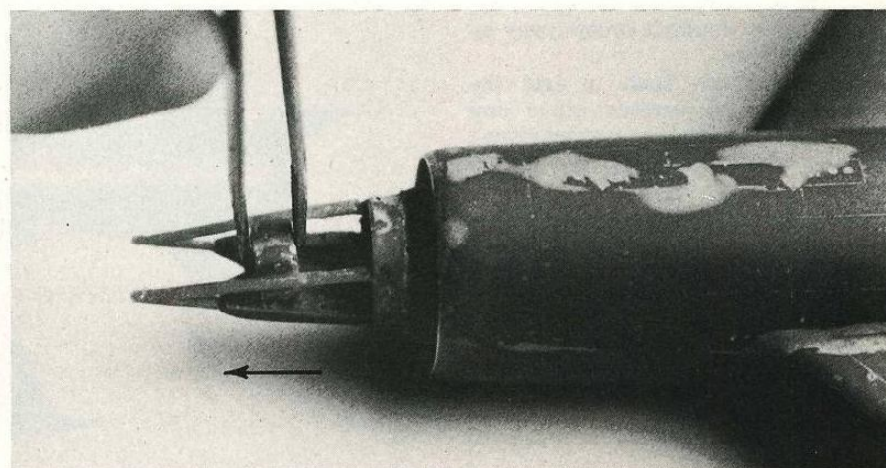


Fig. 10. Using tweezers, Scott inserted the instrument panel between the struts and pushed it forward to rest in the strut apexes.

bottom of the fuselage. To remedy this I cut a thin strip of .010" sheet styrene to fit the inside circumference of the circular air intake, Fig. 3. I super glued it to the inside lip of the air intake, making sure that it would provide a symmetrical leading edge. I smoothed over the area with putty and sanded it smooth.

Figure 4 shows how I used some of the scrap flash to repair a chipped fuselage strake.

Assembly. Following a tip in E. R. Staszak's *Building and Improving Vacuum-Formed Model Aircraft* (Kalmbach), I assembled the fuselage, wings, and horizontal tail planes all at once, resting each piece on a blob of non-hardening modeling clay. These clay blobs serve as a jig to hold the parts in proper alignment while cementing. I applied super glue to the joints with a toothpick. After these joints had set (about two minutes), I attached the vertical tail. Super glue forms a strong bond between the resin parts, providing a surprisingly sturdy structure.

Next, I filled the seams between the wings, tail surfaces, and fuselage with Green Putty, Fig. 5, and wet sanded them smooth. I washed the sanding residue from the model with water and dried it with a hair dryer.

The model needed extra weight in the nose to balance it on its landing gear. I taped fishing sinkers to the forward fuselage, balancing the model on a pencil, Fig. 6. A 1/2-ounce sinker was just right, so I chopped it into small shavings, stuffed the shavings into the nose gear well in the nose cone, and cemented them in place with 5-minute epoxy.

An unusual cockpit. I began by super gluing the part representing the cockpit floor and sides onto the front end of the fuselage, Fig. 7. The nose cone on the Leduc was supported by a tubular framework extending from the

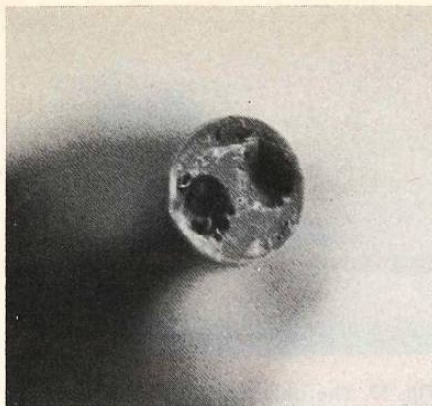


Fig. 11. Two holes for the struts were gouged out of the solid resin nose cone.

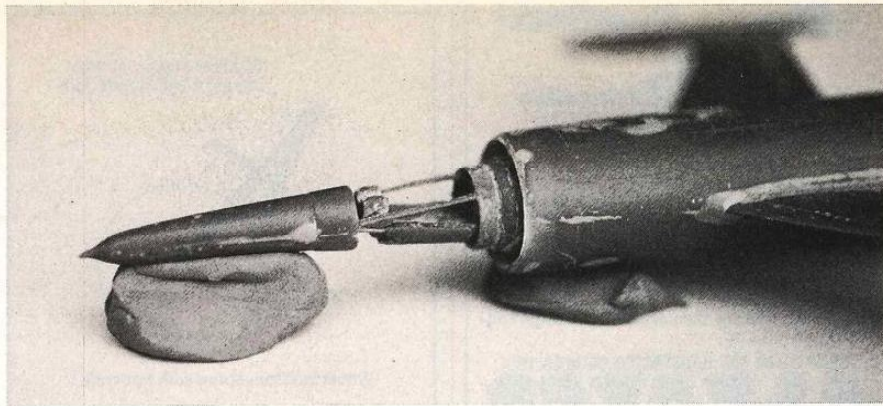


Fig. 12. Scott used modeling clay as temporary jigs to support and align the fuselage and nose cone as they set up.

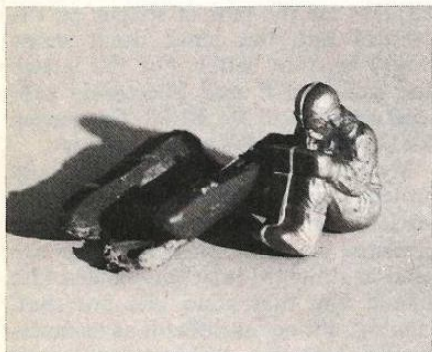


Fig. 13. The ball turret gunner from the Airfix 1/72 B-24 Liberator fit perfectly in the cramped cockpit of the Czechmaster Leduc 022.

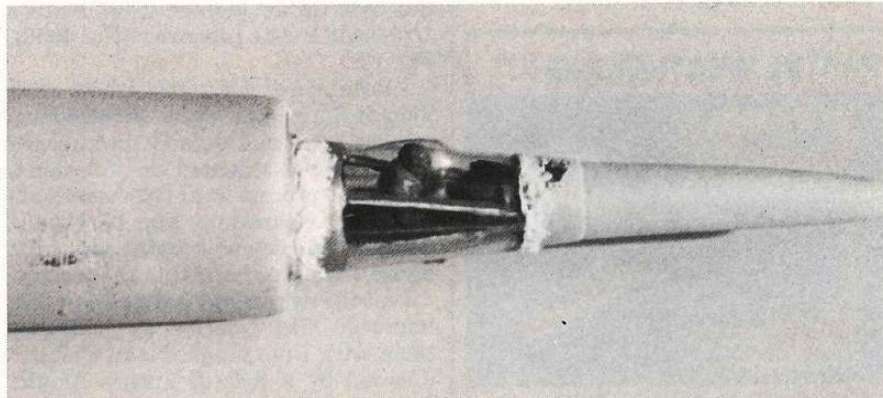


Fig. 15. The clear canopy halves were polished, placed over the struts, and faired into the fuselage and nose cone with putty.

rear of the cockpit to the nose cone. Four V-shaped struts were included in the kit but as far as I could tell, only two would be needed to represent the framework. Perhaps the extra pair is provided as a spare set.

I used the drawings to determine the positioning of the struts. Part of one leg of each strut was cut away to allow the struts to fit on the cockpit floor, Fig. 8.

I had to trim down the kit instrument panel to get it to fit between the struts, Fig. 9. After cutting, filing, and fitting, I inserted the instrument panel with a tweezers, pushing it forward to nestle in the apexes of the struts, Fig. 10. I attached the panel to the struts and the forward edge of the cockpit floor with super glue.

I used the hot knife to cut holes in

the back of the solid resin nose cone to accommodate the cockpit struts, Fig. 11. After determining the correct position and dry-fitting the struts, I set the fuselage assembly and nose cone on modeling clay jigs, Fig. 12, and glued them together with super glue.

I like to include crew members inside my models to add an element of proportion. For the pilot in this model I used

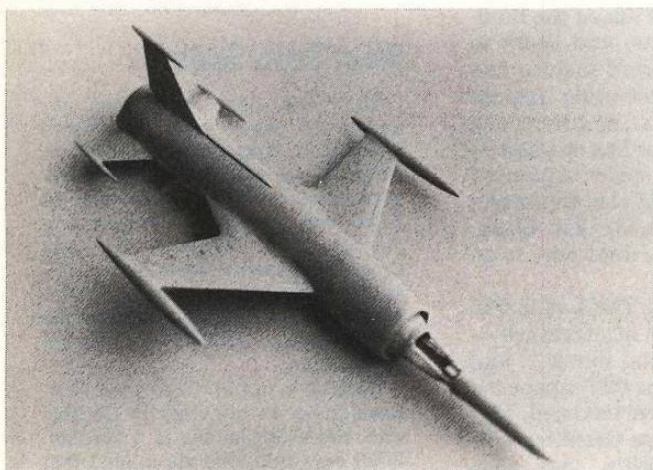
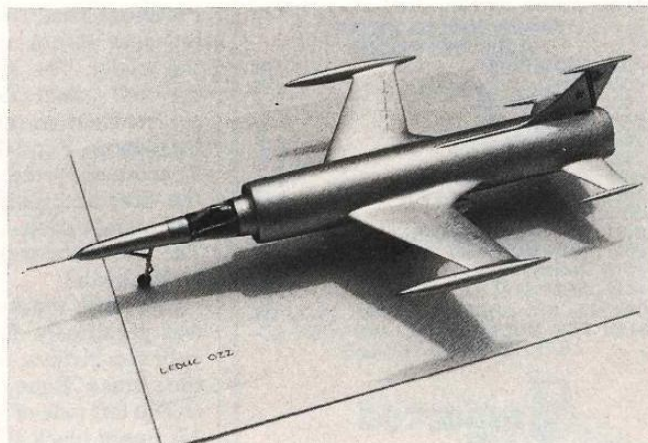


Fig. 14. Scott repeatedly primed, filled, and sanded the model until the surface was free of blemishes.



The Czechmaster model is an unusual addition to any model collection. For the mid-1950s, the Leduc 022 looked more like something from a science fiction novel than from a designer's pen.



WORLD WAR II/MODERN WARGAMING/COLLECTORS' SCALE MODELS

Exact scale 1:1200 (1"=100') & 1:2400 (1"=200') miniature precision metal castings of practically all WWII/Modern ships. Improved versions of models used for recognition training by the USN in WWII. 1:285 metal miniatures of virtually all tanks, artillery pieces, etc. of same eras. Aircraft too. All finely detailed and historically accurate. Realistic wargaming rule systems, data books also. Fast, efficient delivery/COD, Charge/Toll-free phone ordering.

SEND \$1.00 FOR ILLUSTRATED CATALOG TO:

ALNAVCO

DEPT. FSM 585 BOX 9
BELLE HAVEN, VA 23306

PASTEL WEATHERING KIT



AT your dealer \$7.95. Direct orders \$8.50 postpaid.

KOPRO - KP INJECTION MOLDED 1/72 KITS FROM CZECHOSLOVAKIA

# 1	MIG 15 - ITU. (2 seat)	\$5.95
# 2	DELPHIN L 29	5.95
# 3	AVIA B 534	5.95
# 4	IL-10/AVIA B 33	5.95
# 5	MIG 19	5.95
# 6	LETOV S 328	5.95
# 7	MIG 17 PF	5.95
# 8	AVIA B 35	5.95
# 9	POLIKAPPOV P02	5.95
# 10	AERO C 3A	6.95
# 11	AVIA S 199	5.95
# 12	LAVOCKIN LA 7	5.95
# 13	MIG 15	5.95
# 14	CS 199 (2 seat)	5.95
# 15	AERO L 39 ALBATROS	5.95
# 16	LETOV S 16	6.95
# 17	AVIA B21	6.95
# 18	JAK-23	5.95
# 19	MIG 21 MF	6.95
# 20	VICKERS SPITFIRE Mk. LF IXE	7.50

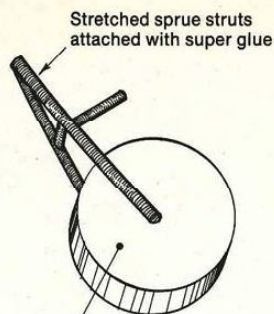
PEGASUS INJECTION MOLDED 1/72 KITS FROM ENGLAND

#002	Spitfire F22/24	8.95
#003	Siemens Schuckert DIII	8.95
#004	Gloster Gauntlet	8.95
#005	Fairley Fox MKI	11.95
#006	Hispano HA 1112	8.95
#007	Gloster Gamecock	8.95
#008	Sopwith Snipe 7F1	8.95
#009	Supermarine Spitfire F-14	8.95
#010	Fairley Albacore	11.95
#011	Curtiss F9C-2 Sparrowhawk	8.95
#012	Focke-Wulf FW 44J "Stieglitz"	8.95
#013	Bristol M.1c	8.95
#014	Grumman F3 F-2	8.95

ON ALL KIT ORDERS PLEASE INCLUDE
\$1.00 FOR POSTAGE. MC AND VISA AC-
CEPTED ON ALL ORDERS.



3655 Sullivant Ave.
Columbus, Ohio 43228
U.S.A.



Wheel cut from sprue with hot knife

Fig. 16 TAIL WHEEL

the ball turret gunner from Airfix's 1/72 scale B-24J Liberator (No. 5006), Fig. 13.

I airbrushed the entire model with Floquil R9 Primer, which revealed numerous holes and defects that needed more work. I repeated the fill, sand, and prime process until the model's exterior was cleaned up, Fig. 14. Next, I painted the cockpit interior and pilot figure, then glued him into the cockpit.

I cut the two canopy halves apart and improved their clarity by polishing them with Blue Magic Metal Polish,* followed by a coat of Future Acrylic Floor Finish applied with a brush. I trimmed the canopy halves with scissors, then dry-fit the canopy halves on the model. I dry-fit the top half of the canopy first because the blister must be carefully placed on the center line. Then, I epoxied both halves of the canopy to the cockpit area. I used Elmer's Carpenter's Putty to fair in the edges of the canopy, Fig. 15, and carefully sanded them smooth.

After washing and drying the model one last time and polishing all surfaces with Blue Magic, I masked off the canopy area and airbrushed the entire model with undiluted Floquil R144 Platinum Mist. Next, I added the landing gear struts, wheels, and doors to the model. The kit didn't include the tiny tail wheel (for protection against overrotation on takeoff), so I built one from sprue, Fig. 16. (See box on page 33 for more on stretching sprue.) I painted the tires and insides of the air intake and combustion chamber flat black. The pitot tube was the final part to go on the model.

Minimum markings. The Leduc 022 was practically devoid of markings — only two stripes, a serial number, and the phrase "Rene Leduc 022" appeared on the left side of the vertical tail, Fig. 17. I used black Bishops Graphics self-adhesive .031" Microthin tape (No.

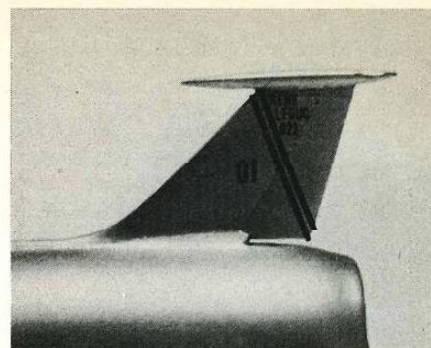


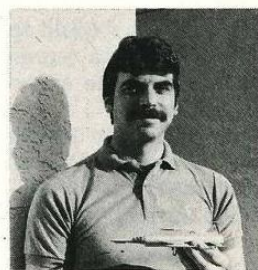
Fig. 17. The only markings on the Leduc 022 were on the left side of the vertical fin. Scott used Microscale railroad letters and graphic tape to duplicate the markings.

T211)** for the pair of stripes on the vertical tail, but black decal stripe would be even better. For the letters and numbers I used Microscale railroad decal sheet No. 87-93 (Condensed RR Gothic Alphabet and Numbers).

My first resin aircraft kit not only provided an unusual model for my collection, but it was an educational experience as well! Modelers who are used to standard injection-molded kits should find that resin kits are challenging, but not as difficult as vacuum-formed kits. I'm looking forward to discovering more and better techniques for building resin kits.

FSM

**Bishops Graphics, Inc., 5388 Sterling Center Drive, Westlake Village, CA 91359.



Meet Scott Edwards

Scott has been a modeler for nearly 20 years, and remembers building his first vacuum-formed kit when he was just 11 years old. After graduating from the University of Tulsa with a degree in engineering physics, Scott moved to the West Coast for graduate work at the University of California, Berkeley. There, a built-up Monogram B-36 in a hobby store window rekindled his interest in modeling.

Scott is back in Oklahoma now, working as an engineer in Bartlesville. His wife Malinda is a teacher. Scott says that Malinda is glad that he has a hobby that "keeps me home with her and out of trouble."

*Blue Magic, Paige Aviation Distributors, P. O. Box 5298, San Mateo, CA 94402.

AIRLINER KITS AND DECALS

FAST Mail Order service with **NO** minimum order. More than 180 different decals to choose from! **DEALERS WELCOMED.** We ship anywhere, **NO C.O.D.s.** **WRITE TODAY!**

Photo shows our NEW YORK AIR decal on the MPC DC-9-30



AVAILABLE CATALOGS:

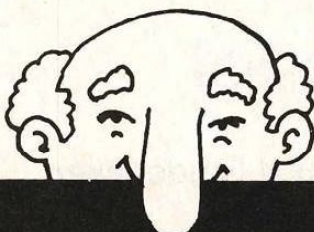
OUR 1985 KIT, DECAL & POSTCARD CATALOG \$ 1.00
 OUR COLOR SLIDE CATALOG (15000 SLIDES) \$ 3.00
 BOTH CATALOGS AT ONCE (SAVE 50¢)..... \$ 3.50

Credit card phone orders 10:00AM-10:00PM Pacific 7 days a week or write:

(408) 629-2121



ATP INCORPORATED
 3014 ABELIA COURT
 SAN JOSE, CA. 95121



DEALERS: Your Source for Models from Around the World.

ARII—Japan
 BANDHI—Japan
 ERTL-AMT—USA
 GUNZE SANGYO—Japan
 HUMBROL—England
 JOHAN—USA
 KOPRO—Czechoslovakia
 LODELLO—Mexico
 MPC—USA
 NICHIMO—Japan
 PLASTICART—E. Germany
 REVELL—W. Germany
 SUNNY—Japan
 TOMY—Japan
 UNION—Japan

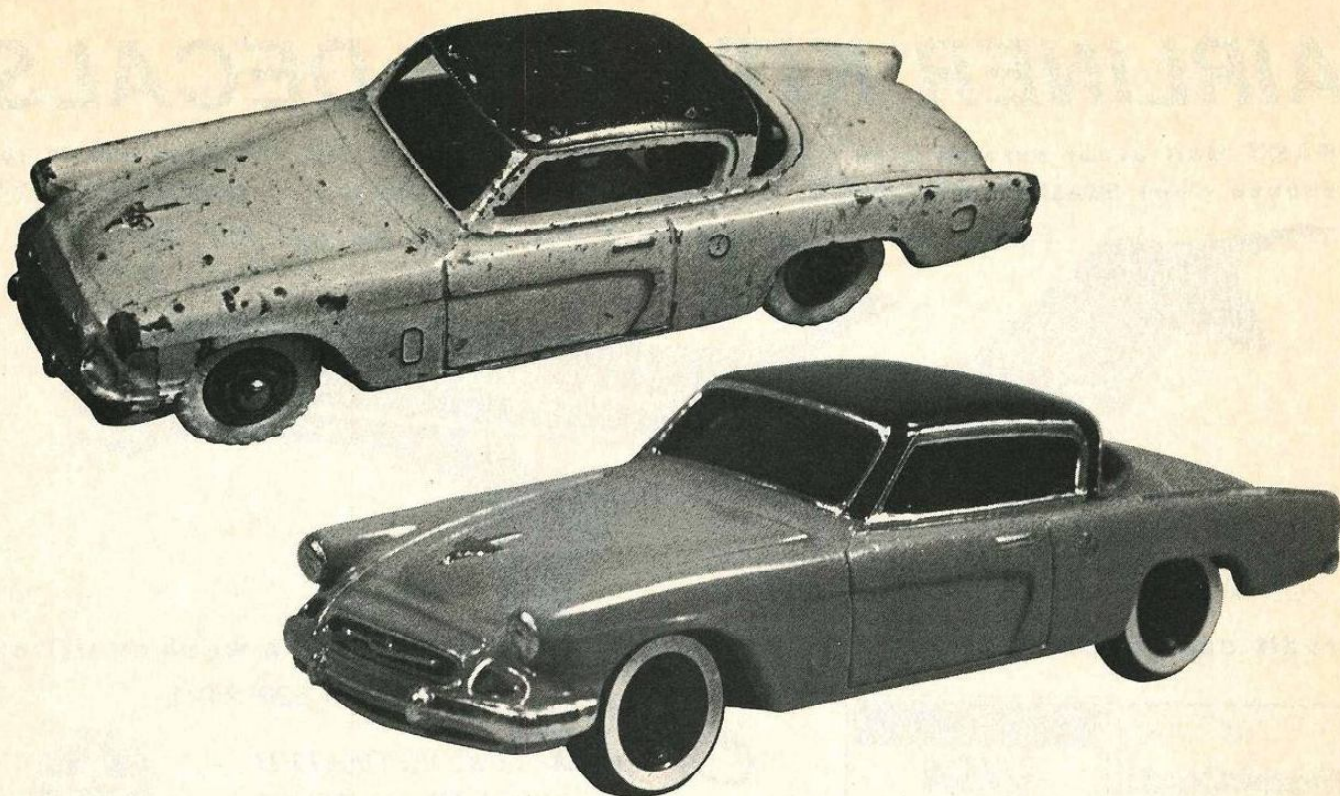
AOSHIMA—Japan
 BURAGO—Italy
 ESCI—Italy
 HASEGAWA—Japan
 IMAI—Japan
 KAWAI—Japan
 LS—Japan
 MATCHBOX—England
 MONOGRAM—USA
 NITTO—Japan
 POL—Poland
 STARFIX—Israel
 TAMIYA—Japan
 TOKYO MAURI—Japan
 WILLIAMS—USA

ARIEL—Japan
 CROWN—Japan
 FUJIMI—Japan
 HELLER—France
 ITALERI—Italy
 KIKOLER—Brazil
 LINDBERG—USA
 MITSUI—Japan
 NAGANO—Japan
 OTAKI—Japan
 REVELL—USA
 SHARP—Japan
 TESTOR—USA
 TSUKUDA—Japan
 YODEL—Japan

Dealers: Send on your letterhead for terms and price list.

ISLAND MODEL CRAFT SUPPLY, INC.

855'S' South Hoffman Lane
 Central Islip, New York 11722
 516-234-5090



(Top) Before. The Dinky Toys Commander Starliner captures the Studebaker's looks, but has seen better days. (Above) After. After disassembling, stripping, repainting, adding tinted windows, and replacing wheels, the renewed toy fits in well with Wayne's 1/43 scale model car collection.

From toy to model

Refurbishing an old Dinky Toys 1954 Studebaker

BY WAYNE E. MOYER

THE PHILOSOPHICAL differences between the collector and the modeler are rarely more sharply defined than in the area of die-cast "models" — especially the older models that were marketed as toys by Dinky Toys, Corgi, and others. The collector wants models in original condition — any modification, even a repaint in the original colors, destroys the value of the model. But the modeler wants the most perfect miniature representation regardless of modifications required.

For example, a mint, boxed example of the Dinky Toys 1954 Studebaker Commander Starliner can bring \$40.00 or more, while a good, slightly chipped one will bring \$25.00. The badly worn copy I found still cost \$15.00. After the work described in this article, its collector value is essentially zero, but it sure looks a lot more like the full-size car.

After comparing the Dinky Toys car to photos of the real thing, I found it

was a remarkably good model, accurate in outline, lots of cast-in details, a true-color two-tone paint scheme, and it was 1/42 scale which fit in well with my 1/43 scale collection. The entire body, including bumpers, was a one-piece casting with only a couple of small mold lines. The front and rear bumpers had been sprayed silver, but no other chrome trim was detailed. Probably the worst features were the lack of interior and windows and the traditional Dinky Toys white-rubber "mud and snow" tires.

Disassembly and stripping. The first step in my "ground-up" rebuild was to get the body off the chassis; that meant drilling off the flanged heads that held the stamped tin chassis to the die-cast body attachment posts, Fig. 1. That done, I snipped off one end of the axle to dismount the tires. The body had to be completely stripped. I tried overnight soaks in commercial paint remover and then in brake fluid. Both softened the 20-year-old baked enamel

but didn't remove it, so I tried spray-on oven cleaner (Mr. Muscle, in this case). The next morning big strips of soft paint were hanging loosely from the model; a few minutes in warm water and a scrub with an old toothbrush produced a clean body, Fig. 2.

The small mold lines inside the headlights and across the rear were filed off with needle files and the inside edges of the window openings were cleaned up at the same time. The die-cast body was much harder than white metal, so files were a must. After wet sanding the entire body with 400-grit sandpaper, I washed it, then "pickled" it in Du Pont Metal Conditioner* in preparation for priming.

Next, I airbrushed the body with a thin coat of Floquil R9 Primer which revealed surface ripples, Fig. 3 (a spray-can primer would have been better in this case). I brushed on thick Du Pont 301S primer to fill the rough spots, then wet sanded the body thoroughly, Fig. 4, before priming again. A final sanding with 600-grit sandpaper and a touch-up with primer prepared the body shell for color coats.

Repainting. Die-cast models are rarely painted in accurate colors, but the original paint on the Dinky Toys Studebaker matched an *Automobile Quarterly* photo well. Before I stripped the model, I mixed Humbrol enamels to match the original colors. I sprayed the front part of the hollow interior pale

*du Pont de Nemours & Co. Inc., Wilmington, DE 19898.

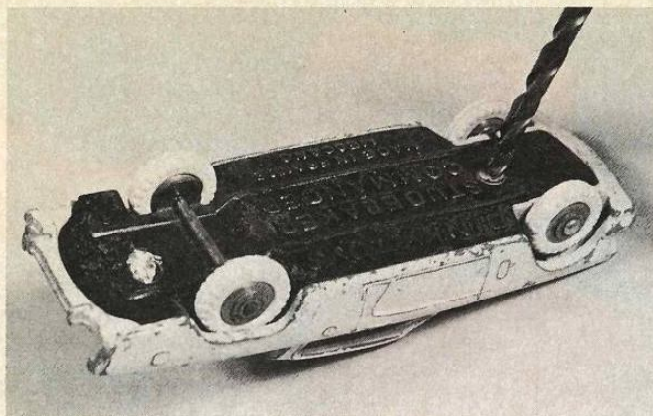


Fig. 1. To disassemble the model, Wayne drilled out the flanges that attach the baseplate.

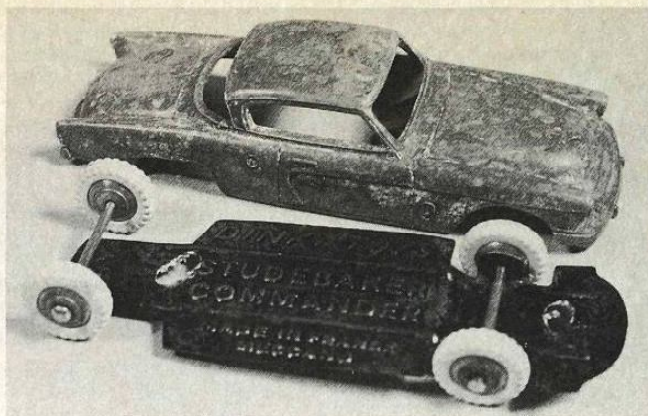


Fig. 2. The model after the body has been stripped and scrubbed. Note Dinky Toys white knobby tires.



Fig. 3. The first primer coat reveals numerous rough spots and small mold lines. Here, Wayne uses a round file to clean up the headlights.

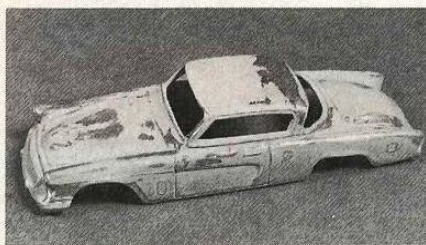


Fig. 4. A thorough wet sanding smooths out the body surface. The model was primed again and checked for rough areas before being painted.

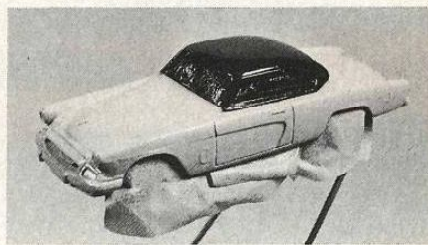


Fig. 5. Before stripping, Humbrol paints were mixed to match the original Dinky Toys colors, which were close to the Studebaker factory colors.

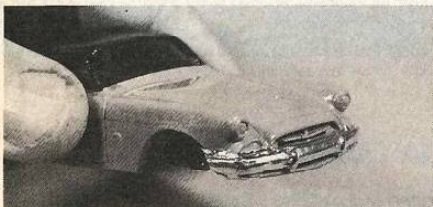
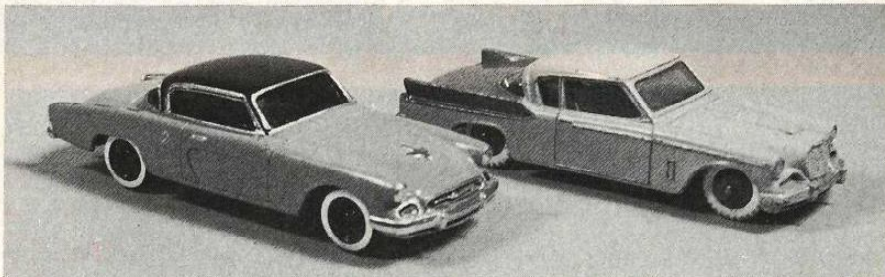


Fig. 6. Wayne used Bare-Metal Foil for the chrome trim. Here, he has applied an oversized piece of foil to the front bumper. Next, he'll burnish the foil, then trim away the excess with a sharp knife.



The finished model next to the author's next restoration project — a Dinky Toys Studebaker Golden Hawk. Replacing wheels and repainting the body did wonders on the old toy.

semigloss green, masked it, and sprayed the rest of the interior and the stamped chassis flat black.

After the interior was dry, I masked it and airbrushed the body light green (spray cans can be used if a suitable nonmetallic color can be found). I allowed this coat to dry a couple of days, then masked the lower body and applied the dark green top color, Fig. 5.

When the body shell was thoroughly dry, I covered all chrome trim including head and taillights with Bare-Metal Foil.* The bumpers were too complex to allow a perfectly smooth job, but the foil looks better than paint, Fig. 6. Floquil Lustre-Glaze Red (L3) over the foil gave an excellent taillight

lens effect — I wish I could find a similar paint for headlights! The foil trim around the side windows looks a bit heavy in 1/42 scale; those with a very steady hand may prefer silver paint. Finally, a coat of Future acrylic floor finish was brushed on with a cotton swab to seal the foil to the paint.

The Dinky Toys Commander measures out to 1/42 scale, so I robbed an old AMT Junior kit of wheels and tires and added Auto-Buff wide whitewalls (no longer available) to them. I admit that the correct Studebaker wheel covers have me stumped — I'm still looking for something acceptable.

If you have good references or access to a '54 Commander, it's possible to scratchbuild an interior from old AMT 1/43 scale kit parts. Since I had neither, I decided to smoke the windows to

help hide the drawbacks of the interior. I sprayed a strip of clear acetate with Floquil Lustre-Glaze Ebony (L7) thinned with Dio-Sol and cut it to fit the window openings. The windscreen and side windows were easy, but the rear window took several attempts. I used Hot Stuff Super T to glue the windows in place (unpainted side out) and the body shell to the chassis.

The Dinky Toys model captures the timeless lines of the original Raymond Lowey-designed body; good chrome trim, fresh paint, realistic tires, and some "glass" all help to make it an attractive model. It started life as a toy, was thoroughly played with and enjoyed before being discarded, and after resurrection is an attractive model of an American car that's not likely to be available any other way.

FSM

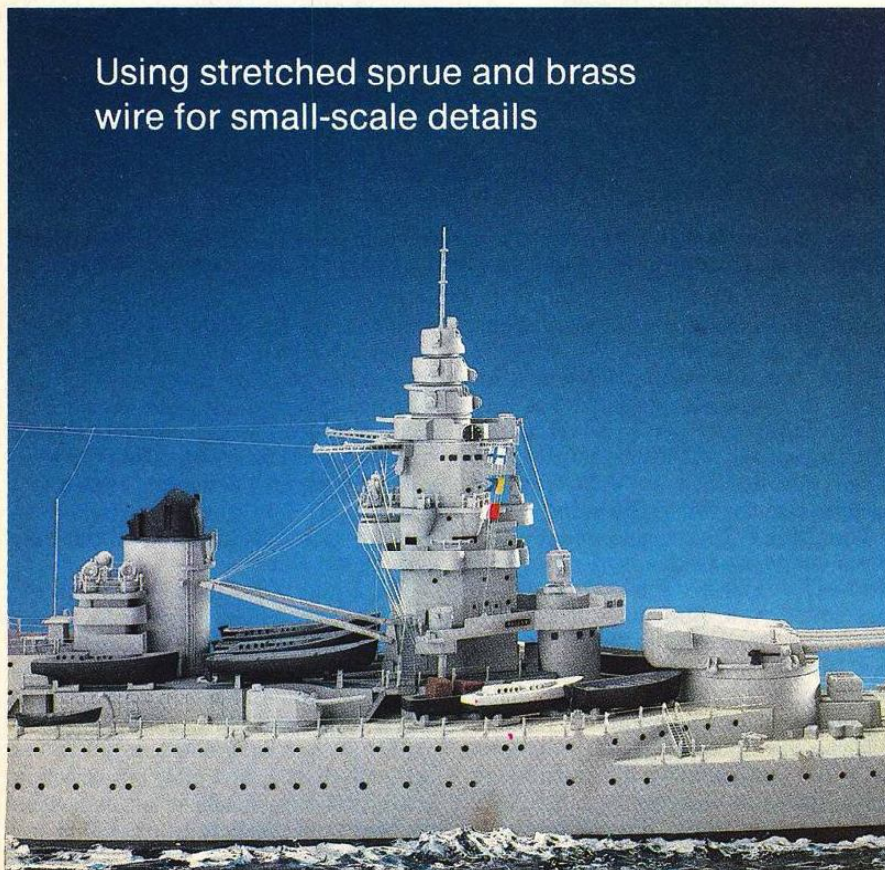
*Bare-Metal Foil Co., P. O. Box 82, Farmington, MI 48024.

Dennis applies a tiny strand of clear stretched sprue to the rigging of his Frog 1/500 scale H. M. S. *Hero*. Diluted white glue applied with a fine brush anchors the strand and the excess is trimmed off with a nail clipper. (Below) The superstructure of the author's 1/400 scale Heller *Dunkerque* shows lots of rigging.

Realistic warship railings and rigging

Both photos this page, FINESCALE MODELER: Paul A. Erler

Using stretched sprue and brass wire for small-scale details



BY DENNIS MOORE

RAILINGS AND RIGGING are among the details that are too fine to be produced in small-scale injection-molded warship kits. Some kits include solid railings with raised stanchions and rails with recessed areas in between, but these don't look convincing in any scale. Many modelers hesitate to eliminate the clumsy kit parts due to a lack of suitable replacements.

Most readily available, modern ship models range between 1/700 and 1/400 scale. The smaller the scale, the bigger the problem of accurately simulating fine details. If you blow up a photo of a large vessel to 1/700 scale, it's difficult, if not impossible, to see the handrails and most rigging. Such features are easier to see in 1/350 or 1/500 scale, and adding them to models in these scales is easier.

Materials. Several materials can be used to produce railings and riggings on small-scale ship models. I've seen human hair used on 1/600 scale models, but not all of us have a source of long, straight gray hair. Hair is likely to shrink and curl with changes in temperature and humidity. Although this



Heller's 1/400 scale German cruiser *Hipper* shows off the author's rigging and railings. Note strands of rigging attached to other strands.

isn't a problem with railings due to the short gaps between stanchions, it is a problem with rigging masts. Common sewing thread is too thick and fuzzy. Surgical thread is better, but still too thick for anything smaller than 1/200 scale.

I use brass wire for stanchions and stretched sprue for rails and rigging. The brass wire I use for stanchions comes in a wide variety of gauges good for most scales. For most of my ship stanchions I use Detail Associates* .012" brass wire. Brass wire is easy to cut using a nail clipper, Fig. 1. Although I have seen stretched sprue stanchions, brass wire is better because its thickness is consistent and it is more rigid, providing better support. Stretched sprue (see the box on page 33) is my choice for hand railings and rigging in 1/500 up to 1/350 scale because it is thin, easily bent around corners, doesn't fuzz, and the raw material comes with most kits.

Installing stanchions. First, I cut the brass wire into dozens of pieces — the height of the stanchions is determined by the scale of the model. Mounting stanchions is easy, but unbelievably tedious. I use an X-acto pin vise and a No. 80 or 78 drill bit to drill holes in the deck edges to mount the stanchions. Since these bits are fine and easy to break, I keep spares on hand. Mascot** (formerly Maxon) drill bits can be purchased in quantity rather than as part of a set.

*Detail Associates, P. O. Box 197, Santa Maria, CA 93454.

**Mascot Division of Grobet File Co. of America, Inc., 750 Washington Avenue, Carlstadt, NJ 07072.

To establish the distance between stanchions, I preset the distance on a drawing compass. (You should have the hull and the deck house modules built and painted at this point — it's easier to glue the deck houses down after they have been railed.) I begin at the tip of the bow, using the compass to mark where the holes are to be drilled. I walk the compass along the main deck till I run out of stern, then repeat the process on the other side of the deck, making sure the stanchion locations are opposite those on the first side.

As you move your eyes along any deck, look for structural changes such as anchor fittings, tie-downs, cable



FINESCALE MODELER: Paul A. Erler

Fig. 1. Dennis makes stanchions from fine brass wire available from model railroad shops. The soft brass is easily cut with a nail clipper or scissors.

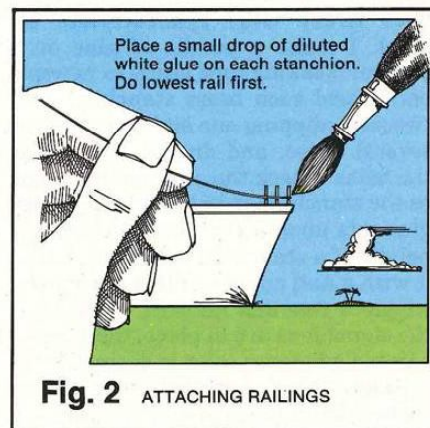


Fig. 2 ATTACHING RAILINGS

housings, or the length of a smaller upper deck before drilling. You may have to make subtle changes in distance between stanchions to avoid these obstacles.

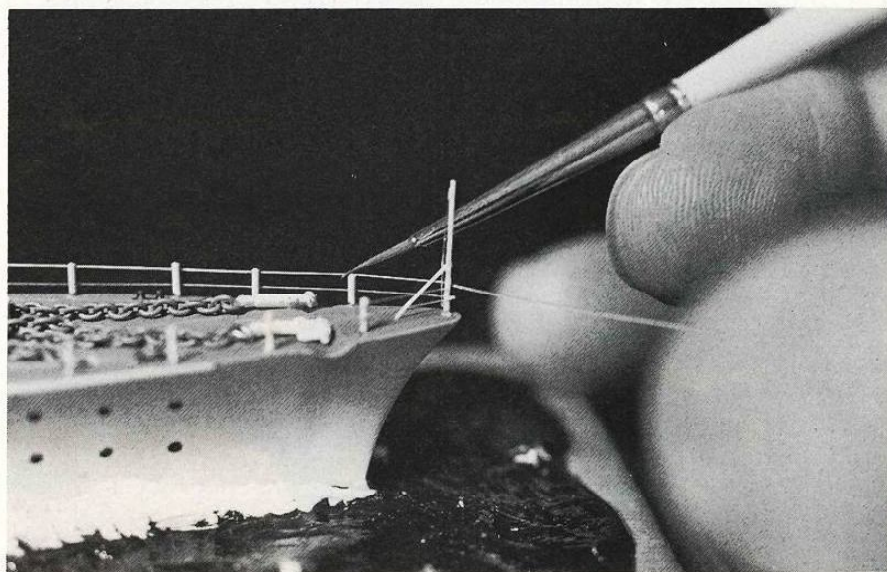


Fig. 3. The top rail of the main deck is finished off as the strand of stretched sprue is glued to the last stanchions on the bow. Diluted white glue applied with a fine brush dries quickly and is surprisingly strong.

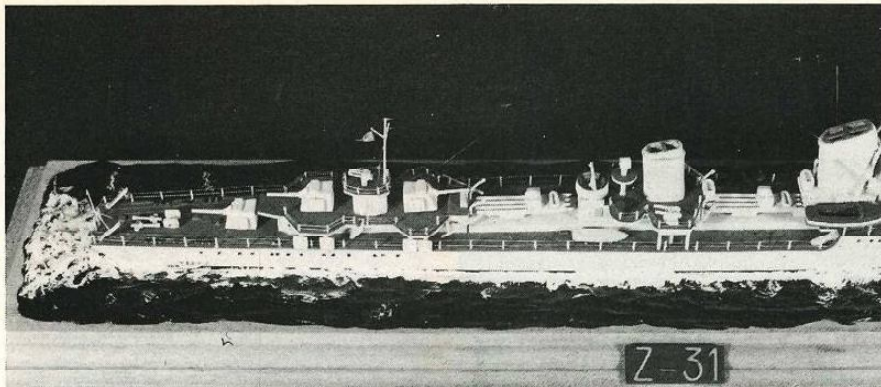


Fig. 4. The upper deck of Heller's 1/400 scale Z-31 is a good example of railing that goes around obstacles. A touch of liquid plastic cement softens the sprue, allowing it to be bent around the brass stanchions.

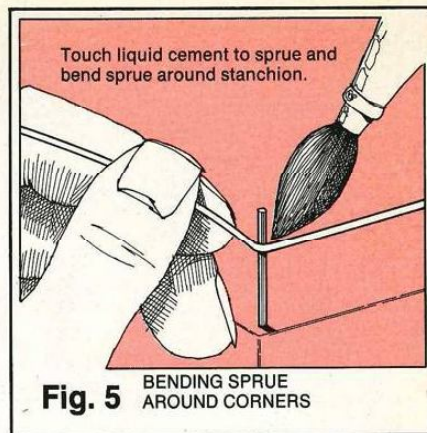
After all the holes have been drilled, I attach the stanchions to the decks with Krazy Glue cyanoacrylate cement. I make a puddle of glue on a piece of masking tape stuck to newspaper. I hold each brass stanchion with tweezers, dipping one end into the glue several times, and drop it into one of the holes. Check the alignment as soon as the stanchion is in place because the glue sets up quickly. Next, I check the height; if a stanchion is too tall, I trim it with a nail clipper. If it is too short, I wiggle it free and reinsert. Once all of the stanchions are in place, they can be painted whatever color is desired.

Rails. I use stretched clear plastic sprue for my railings and rigging — it stretches best and holds its shape better than colored plastic. In small scales, clear sprue gives a hint that something is there without overwhelming the model as colored sprue would.

The first time you use this technique

of attaching sprue to stanchions, I suggest that you work on the main deck of the vessel first, since the rails there are fairly straight. It's a lot easier to attach the rails if you lay the hull over on its side. Start with the lowest rail first. I use slightly thinned white glue to attach the rails to the stanchions. Using a 0000 brush, I place a small amount of white glue on the first bow stanchion and touch the end of sprue to the glue, Fig. 2. A small amount of white glue sets up quickly and is surprisingly strong.

Once that first piece has dried in place it's just a matter of repeating the process several hundred times as you go around the deck, Fig. 3. Check for alignment problems when all of the strands are in place. The nice thing about white glue is that it is water soluble — if a rail is out of parallel, the bond can be loosened with a little water on a brush and reglued.



Superstructures. Since the upper decks are smaller and contain funnels, gun turrets, catapults, gangways, and lifeboats, the railings seldom run in long straight lines as they go up, down, and around these features, Fig. 4. There are two ways to attach small sections of railing: measure the distance of a section with a compass and then lay in the appropriate length of sprue, or melt the sprue with liquid plastic cement at the point where the railing changes direction.

I find the latter technique easier, but be careful when applying the cement to prevent damaging the paint or melting through the sprue. I use IPS Weld-On #4* because it works slower than other liquid cements. Just a small dab of it right where the direction changes is usually enough to soften the sprue sufficiently to bend it around a corner, Fig. 5. If you do melt through, don't panic; just attach the melted end of the sprue to the stanchion that you were bending around.

Now you see why I suggested leaving off those deck structures until after the railings have been installed; it's a lot easier to do this away from the main deck.

After completing all the railings, overspray the entire model with your choice of clear flat or gloss. Do this before you rig the masts. Since the distances bridged by the sprue rails are small and they are glued in place at every stanchion, any distortion the overspray causes will be insignificant. However, the mast rigging bridges larger gaps, and an uneven coat of overspray can cause the rigging to curl after slight changes in temperature. (Even temperature extremes have little effect on oversprayed rails and unsprayed rigging — I hauled two ship models in an un-air conditioned car from Wisconsin to the 1983 IPMS national convention in Phoenix, Arizona. The temperature got well above 100 degrees, but as

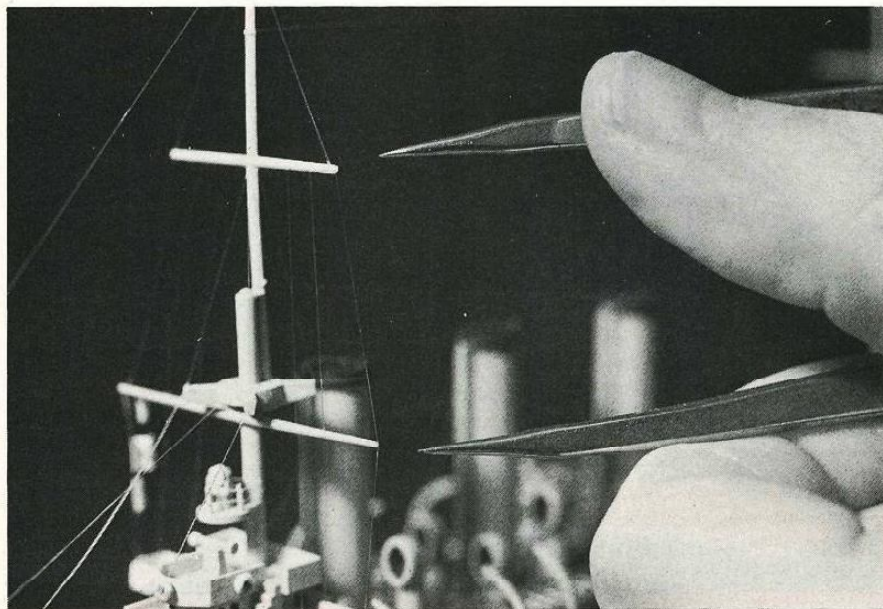
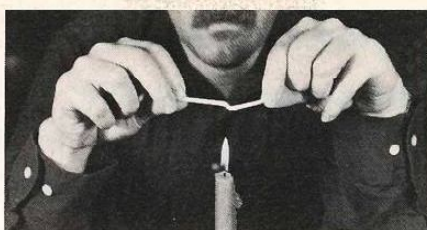


Fig. 6. Dennis uses a drafting compass or dividers to measure each piece of sprue for rigging masts.

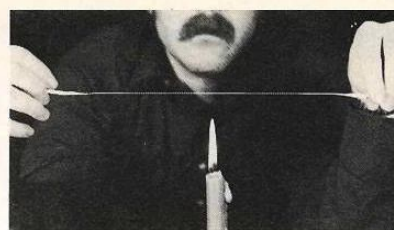
*Industrial Polychemical Service, P. O. Box 471, Gardena, CA 90247.



A



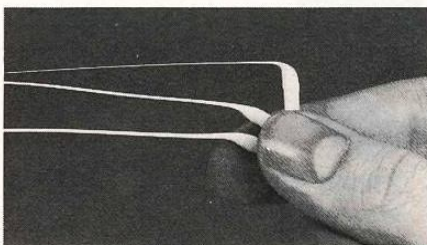
B



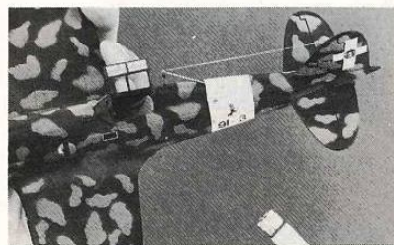
C



D



E



F

STRETCHING SPRUE

Stretching sprue is an easy process that calls for nothing more than sprue (the tree that holds the parts in an injection-molded kit) and a lighted candle. Select a three-inch piece of clear plastic sprue. The piece must be long enough to avoid burning your fingers in the candle flame. The trick to making satisfactory stretched sprue is to heat the plastic evenly. Hold the sprue over the flame and roll it with the tips of your fingers so that all sides of the center section are heated (A). Note that the tree begins to appear glossy and feel soft (B). Now, remove the sprue from the flame and pull the ends apart.

If you have done it right you will have a length of sprue the span of your arms and hair thin (C). I can't really tell you how fast to move your arms apart when pulling the sprue; that's something you'll have to learn from experience. Needless to say, the finer the sprue that you can pull, the better your rigging is going to look. If the sprue breaks as you pull it, it hasn't been heated evenly or you pulled too fast (D). If the sprue should catch fire while you're heating it, just blow the flame

out and start again. Any leftover stretched sprue can be taped to a wall or basement rafter.

Stretched sprue has more applications: rigging for biplane models, antenna wires on aircraft and armor, ignition wires on automobiles, and so forth. With practice, you'll be able to control the thickness of the sprue by varying the speed of the pull and the length of time heating over the flame (E).

A technique I call "bouncing" allows the installation of stretched sprue in hard-to-get-to places, such as between interplane struts on a biplane. Simply cut a piece slightly longer than needed and anchor each end in position. When the adhesive at each end is dry, place a lighted cigarette, incense stick, or firecracker punk near the sprue (F). The heat causes the sprue to sag momentarily, then pull taut. It takes a little practice to know just how close to bring the heat source. I don't recommend it on ship rigging since a tight piece of stretched sprue may bend masts and yards out of alignment.

Dennis Moore

long as I kept the models out of direct sunlight, I had no problems.)

Rigging the masts. I use a drafting compass to measure the distances between masts, from masts to yards, and from yards to deck, Fig. 6. Rigging on a real ship gently sags between masts, so I don't recommend tightening the sprue by "bouncing" it with a hot object. This may cause problems when there are several lines of rigging running side by side or under each other. The heat from your hot knife or cigarette will, as often as not, bounce the wrong sprue, or produce a kink, forcing you to replace the kinked section. Bouncing a sprue also might place too much tension, causing a yard to be pulled around or a mast to lean.

The method I use to attach rigging lines is exactly the same as for mounting railings. Just a small dab of white glue while holding the line in place for a few seconds does the trick. Since sprue sometimes tends to curve after it

is cut, make sure that the curve becomes the basis for the sag, Fig. 7. After the rigging lines are dry, flags and other sprue rigging lines can be attached to them using white glue.

All of the steps that I have described

are unbelievably slow, boring, and at times, nerve-racking, so don't overdo things. Your patience and the hours that you spend on railing and rigging will be amply rewarded by the beautifully realistic models on your shelf. **FSM**

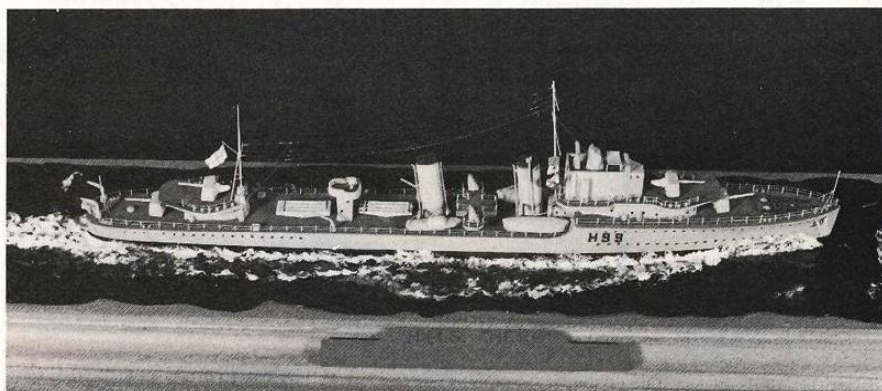


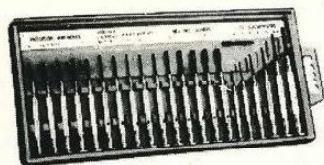
Fig. 7. Stretched sprue's tendency to sag is used to represent the natural sag in long lines of rigging. Tightening these lines would be unrealistic and could bend the masts.

Polk's Sensible Costs bring you multi-dollar savings + top quality!

MAGNIFIER LAMP

WITH MULTI-POSITION 39" FLEXIBLE ARM. 3 DIOPTR

LENS FOR A 4 TIMES MAGNIFICATION.



\$30.00

U.S. SIZE SCREWDRIVERS, PLUS PHILLIPS, HEX, AND WRENCH TYPES.

21 PIECE TOOL SET

SOLDERING IRONS

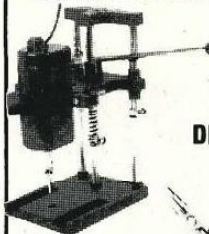
\$3.00 EACH

110V 30 WATT FOR HOBBYIST USE.

12V FIELD IRON FOR OUTDOOR REPAIRS. 30 WATT W/CIGARETTE LIGHTER ATTACHMENT.

TRIPLE HANDS WITH MAGNIFIER

FOR EXTRA HELP IN HOLDING THOSE SMALL PARTS WHILE SOLDERING, GLUING OR PAINTING



\$5.00

HIGH POWERED ELECTRIC DRILL

A.C. MOTOR \$12.00

DRILL PRESS \$10.00

FOR THE ELECTRIC DRILL FOR ALL HOBBY WORK.

3 PLIER SET

NEEDLE NOSE, SIDE CUTTER, AND LINEMANS FLAT NOSE ALL 4" SIZE

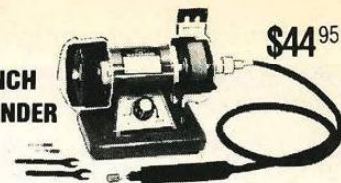
\$6.00

FOLDING, CHROME PLATED SCISSORS

\$1.00

FOR EASY CARRYING

BENCH GRINDER



\$44.95

W/FLEXIBLE SHAFT TOOL AND CHUCK FOR ALL POPULAR HOBBYISTS TOOL BITS. VARIABLE SPEED A.C. MOTOR FOR A STRONG LONG LIFE.

VACUUM BASE TYPE VISE

FOR DELICATE WORK.

\$2.50

11 BLADE SWISS ARMY STYLE KNIFE



\$5.00

350 AIRBRUSH SET

WITH 2 JARS, HOSE, CAP, AND REGULATOR. EXTERNAL. SINGLE ACTION BRUSH FOR EASY CLEANING AND USE.

\$20.00



1935
1985

Polk's
model craft
Hobbies



50th Anniversary

Phone us...we'll have it on its way...

346 Bergen Ave., Jersey City, N.J. 07304, Dept. 33F

Phone (201) 332-8100 Orders only 1-800-225 POLK (9-5:30 E.S.T.)
call toll free

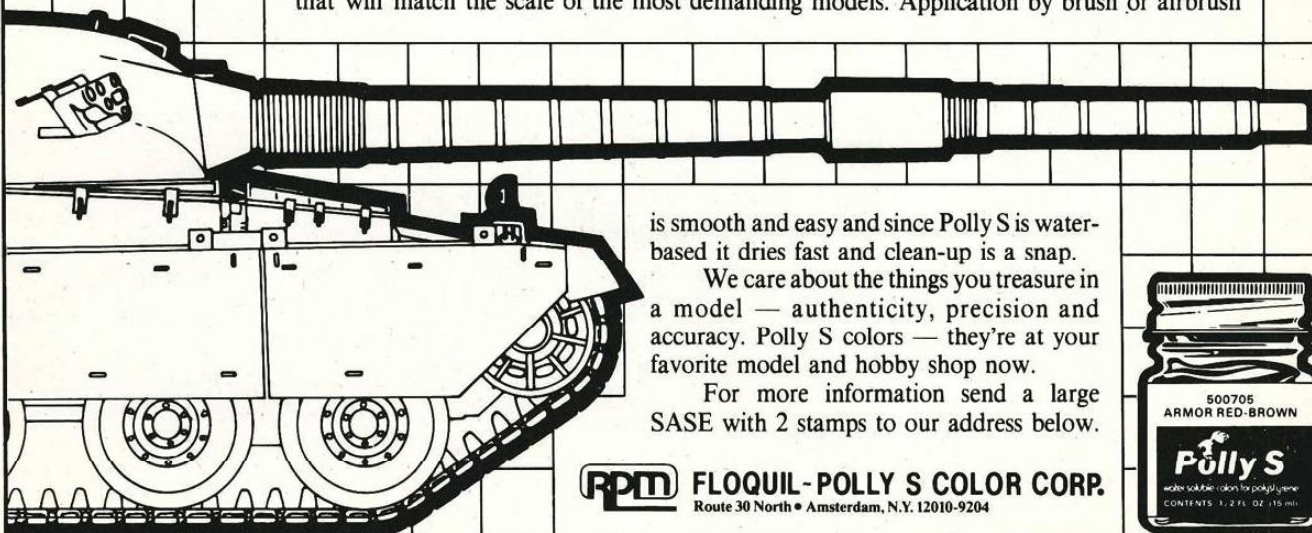
Visit our N.Y.C. Store, at 314 5th Avenue, N.Y.C., N.Y. 10001
150 steps from the Empire State Building

Please add \$5.00 shipping and handling charge to payment of your order in personal check, money order, certified check, COD or acceptable major credit card (include account number and expiration number and expiration date).

AUTHENTIC

You choose a model for its authentic reproduction. You spend hours building in perfect detail and precision scale. When it comes to the finish, the match must be exact not approximate. We understand your needs and that's why we make Polly S modeling colors in authentically matched WWII colors, the most needed Federal Standard 595A colors, plus a broad selection of general purpose and weathering colors.

Polly S colors are made with extra fine pigments, producing a super thin, skin-tight film that will match the scale of the most demanding models. Application by brush or airbrush



is smooth and easy and since Polly S is water-based it dries fast and clean-up is a snap.

We care about the things you treasure in a model — authenticity, precision and accuracy. Polly S colors — they're at your favorite model and hobby shop now.

For more information send a large SASE with 2 stamps to our address below.



FLOQUIL-POLLY S COLOR CORP.

Route 30 North • Amsterdam, N.Y. 12010-9204



For color charts with actual color chips enclose: \$1.00 for General Flat Colors (Specify No. 590244) \$1.75 for Camouflage Colors (Specify No. 590246)

Got a modeling problem? FSM Clinic is here to help. FSM's staff will try to answer any modeling question and solve any modeling problem you have. FSM Clinic, however, is not a reference service for markings, unit histories, and other non-modeling, research questions. Send your questions to FSM Clinic, FINESCALE MODELER, 1027 North Seventh Street, Milwaukee, WI 53233.

Conducted by Paul Boyer

More on Model Master paints. Perhaps I can help Dennis Blake with his problem using Testor Model Master paints (FSM Clinic, January/February 1985). I mix one part Top Coat (in the Model Master car paint line) with two parts paint and three or more parts Floquil Dio-Sol. The paint flows better through my double-action, internal-mix airbrush and it's easier to spray fine lines. Since I haven't tried it with all colors, the thinning ratio might change with different pigments.

Charles Costa

And . . . I add a little Du Pont Slow Drying Enamel Reducer (38325) to Testor Model Master paints to improve spraying performance. I don't know what percentage I'm using — I just add until it looks right.

A. E. Griffin

Also, Testor has announced a new formula Model Master Airbrush Thinner that is slower drying; this should help keep the paint from drying in the airbrush tip and allow better spraying performance.

Paul Boyer

Hustler and Stratojet. Does anyone make 1/72 or 1/48 scale models of the Convair B-58 Hustler and the Boeing B-47 Stratojet? I have built the old Comet, Monogram, and Revell kits but hope for something more detailed.

Jason Arndt

You're in luck! Minicraft-Hasegawa has had a 1/72 scale B-47 kit now for about 15 years. This year you will see a 1/72 scale B-58 Hustler from Testor-Italeri and a 1/48 scale Hustler from Monogram. Your local hobby store should stock all these kits.

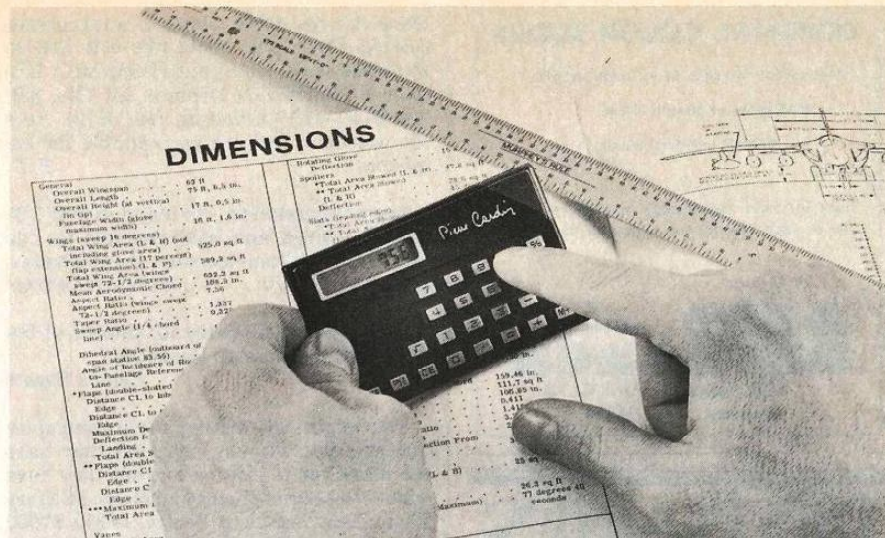
P. B.

Hot knife. In Francois Verlinden's *On Target — The German Tiger Tanks*, the author uses something called a "pyrograph" to apply Zimmerit to models of German armor. I've looked everywhere for this item, with no luck. Any suggestions?

James L. Turner

The item you are looking for is a hot knife. (You'll find other books referring to a "pyrogravure" — it's the same thing, too.) You can make one out of a woodburning set and an old knife blade or purchase a commercial unit. Write Santos Miniatures, P. O. Box 4062, Harrisburg, PA 17111, or Auto World, 701 North Keyser Avenue, Scranton, PA 18508, for information on hot knife tools.

P. B.



What is scale? I realize that models are produced in scale, but I'm not sure what this means. What does the scale expressed on the box top mean? Also, are scale rulers available?

Jack Falduto

Scale is an expression of relative size of the model. A 1/48 scale model is 1/48th the size of the real thing; in other words the real thing is 48 times as big as the model. If the length of a 1/48 scale model is 1 foot, the real thing would be 48 feet long.

It's easy to figure the size of a model. Let's say you wanted to know how big a model of a Lockheed C-5A Galaxy would be in 1/72 scale. From your reference sources, you find that the length of the C-5 is 247 feet 10 inches. Using a pocket calculator or long-hand math, multiply 247 (feet) times 12 and add 10 (inches) to convert the measurement into inches, then divide by the scale (72):

$$247' \times 12 = 2964' + 10' = 2974' \\ \div 72 = 41.3''$$

So a 1/72 scale C-5A would be 41.3 inches long; imagine it in 1/48 scale — nearly 62" long!

Scale rules are available from Murphey Model Products, P. O. Box 8181, Cincinnati, OH 45208. Rule I has 1/72 and 1/48 scale, Rule II has 1/35 and 1/32, and Rule III has 1/43 and 1/25. There are also model railroad scale rulers and some architect's scales are useful.

P. B.

Metal primer. I'm starting to work with metal accessories and wonder if standard model paints will adhere sufficiently. Should I use a metal primer? Should I do anything special to metal parts before painting? I don't have an airbrush so anything you might suggest would have to be applied with a brush.

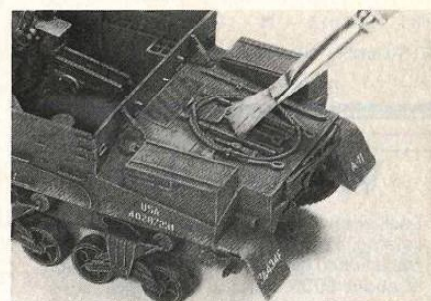
Thomas Dinackus

The keys to getting paint to stick to metal are a clean surface, a tough paint, and a surface that won't move (bending, scraping, and temperature extremes could cause the paint to flake off). First, wash all metal surfaces with soapy water, then wipe with denatured alcohol or lacquer thinner. This will eliminate mold release lubricants and fingerprints. You can hand brush Floquil colors on metal and they should stick pretty

well. Polly S Metal Primer (PF6) helps Polly S color coats adhere to bare metal surfaces. Standard enamels should stick satisfactorily but may be difficult to apply with a brush.

Another approach is to prime the metal parts with an aerosol primer, then brush paint the color coats with your favorite enamels, acrylics, or lacquers.

P. B.



Shep Paine

Weathered armor. How can I get an effective metallic look of worn, chipped-off paint on my 1/35 scale armor models?

Thomas Dinackus

Although paint on real armored vehicles is hardly indestructible, this weathering effect is often overdone on armor models. The paint rarely chips off in flakes (as is sometimes the case with aircraft); the actual appearance is more of a scuffing, and occurs in those areas where crew traffic is heaviest — around hatches and fueling points. In most cases the effect is so subtle that it would be barely visible in 1/35 scale. While you don't want to ignore it, don't overdo it either.

Using a mixture of silver and black, dry the brush almost completely by wiping most of the paint off on a piece of paper, then scrub the area with the dry brush. The remaining nearly dry pigment will produce a realistic worn area.

Shep Paine

Plastic patrollers. My dad was in the Navy and flew in P2V-7 Neptunes and P3V Orions. Are there any models of these aircraft?

Jim Pozniak

Revell used to make an odd-scale kit of the Neptune but it is no longer available. Revell also makes an odd-scale kit of the

ORIGINAL COLOR SLIDES

■ Hundreds of slides listed each month

■ All types of aircraft listed

■ Quality original slides

Send for most recent copy of **FREE** monthly list or send 50¢ for list & sample slide.

AERO RESEARCH

4672 Flamingo Park Ct.-B
Fremont, CA 94538

DES PLAINES HOBBIES

**PROBABLY THE BEST LITTLE
MODEL SHOP IN CHICAGOLAND**

OPEN 7 DAYS A WEEK

HO - HO n3 - N - O - On3 - S - Sn3

713 Center Street, Des Plaines, IL 60016

Phone: (312) 297-2118

W—O—W!!!!

Look what I have for you - a spanking new catalog, a mind boggling 184 pages thick. Have added over 300 new plans for a total of about 1500 plans of every type, style, make, trend and period. If there is a boat plan that you want - I **PROBABLY HAVE IT**. ALSO - I now carry kits - both static and R/C - fiber glass hulls, R/C accessories, cabled laid linen rigging, tools books, books and more books.

The new 1985, 184 page, **TAUBMAN CATALOG - PLUS the MAP #2 Plans Handbook** for boats and cars for only \$4.50. For domestic 3rd Class Mail, add \$1.50. Surface mail to Can., Mex., So. Amer. & Eur. add \$3.00 For Air Mail to So. Amer. & Eur. add \$8.00. Pacific area add \$5.00 surface mail and \$10.00 Air Mail.

Those seeking additional plans for warships, liners and merchant marine send an additional \$1.00 for the Wiswesser Catalog.

1985 MAP #3 For **ENGINES** -Marine, steam, Loco, Planes send \$2.00 plus \$1.50 for shipping.

DYNAMICS MODELS catalog for fiber-glass hulls, R/C kits and accessories - \$5.00

So, if you are planning on buying plans, plan on buying the plans from

TAUBMAN PLANS SERVICE

11 College Drive
Box 4G - Dept. FSM
Jersey City, N.J. 07305

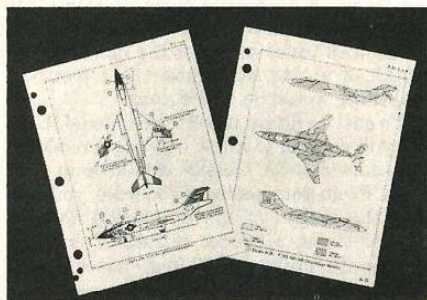
(When sending inquiries, please include a S.A.S.E.)

Orion (kit No. 4428) which is in its current catalog. But if you would like both kits in the same scale, check out Hasegawa's 1/72 scale P-2H (P2V-7) Neptune kit (No. K6) and P-3C (P3V) Orion kit (No. K15). Both are excellent, but are not suitable for beginners. *P. B.*

Armor information. I'm trying to find 1/35 scale drawings and field manuals for the 155 mm Long Tom howitzer. Do you have a source? *Richard Donovan*

Do you know a source for photos of the interior of the German Panzer IV? *Chuck Seyars*

You might try writing these companies and agencies. I'm not sure that they have the items you're looking for, but they have wide selections of photos and plans: Military Photo Archives, John Beatty, W150 S7000 Cornell Circle, Muskego, WI 53150; Technicolor Government Services, Inc., DAVA-W Still Depository, Customer Services, Defense Audiovisual Agency, Production, Distribution and Depository Activity, Building 168, NDW, Washington, DC 20374; and Henry S. Queener, Jr., P. O. Box 50203, Nashville, TN 37205. *P. B.*



Camouflage patterns. Where can I find a book of drawings that shows the patterns for painting modern jets and helicopters along with the Federal Standard color numbers? *Cary Smith*

Unfortunately, no one source has the information you seek. If you have a particular aircraft in mind, look into some of the monographs (books about a single aircraft subject) that are available. T. O. 1-1-4 (above) is an official technical publication for the United States Air Force that covers camouflage and markings for all the USAF aircraft currently in service. It includes the sizes of lettering and location of all markings along with FS 595a color numbers and camouflage patterns. Since this is an official USAF document, you may have trouble getting one. Sometimes Air Force recruiters can help you contact a source. *P. B.*

KB-50 model. I have searched in vain for a 1/72 scale kit of the Boeing KB-50. I bought a White Eagle B-50D vacuum-formed kit, but it lacked the jet pods, external refueling tanks, dorsal and ventral radomes, and the modified tail cone of the refueling aircraft. Do you have any suggestions? *David Taylor*

An accurate conversion of the B-29 to a KB-50 could be an expensive proposition — in both time and money. The late Dave

Boksanski did a similar conversion when he made his B-50D by mating the Airfix B-29 with wings, tail, and engines of the vacuum-formed RAREplanes KC-97 (Summer 1983, FSM). It can provide the jet pods and refueling tanks as well, leaving you with only the radomes and tail cone to scratch up from wood or styrene. Unfortunately the \$24.00 RAREplanes kit is out of production and hard to find. White Eagle had scheduled a KC-97 kit as well, but I haven't seen one yet. *P. B.*



Israeli armor color. What is the proper color for Israeli armor? *George Reynolds*

Israeli "desert sand" is an unusual mixture of gray and tan, designed to be effective against both the gray terrain of the Golan Heights and the yellow sand of the Sinai. Humbrol Khaki Drill (HM8) is close, but you can combine equal parts of your favorite yellow and gray, too. Don't alter the color too much when you apply a wash or dry-brush weathering over it. *Shep Paine*

Tape too strong. No matter what type of tape I use to mask my models (Scotch Magic tape, drafting tape, masking tape), I always pull fragments of paint off the plastic. What can I do to prevent this? *Marvin Leftick*

Your problem is a common one with no easy solution, but try these. Before applying the tape to the model, repeatedly apply it to your fingers — the oil from your skin will decrease the stickiness of the adhesive. Try using thin strips of tape along the color line and cover the rest of the masked area with paper or Saran Wrap. This decreases the area exposed to the tape. Try one of the liquid masking agents available. Lastly, use a lacquer-base paint such as Floquil. Lacquer bites into the plastic slightly (you can only airbrush it, though) and doesn't pull up as easily. *P. B.*

1/48 scale Vigilante? I have become fascinated with the North American RA-5C Vigilante but have had no luck finding a 1/48 scale injection-molded replica. Do you know if anyone makes a kit of it in this scale? *Duke Bevard*

No 1/48 scale kit of the Vigie has been produced yet — not even a vacuum-formed one. There are 1/72 scale kits by Hasegawa and Airfix, and a couple of odd-scale A-5As from Monogram and Revell. There was also a 1/144 scale RA-5C by Otaki.

I wouldn't give up hope for a 1/48 scale kit; try writing to Monogram, Hasegawa, Revell, and ESCI to suggest they produce a kit in that scale. *P. B.*

FSM

WHY SETTLE FOR ANYTHING LESS THAN THE #1 INSTANT GLUE!



The Krazy Glue® line of hobby glues

Stick with the #1 selling instant glue in the country. KRAZY GLUE! It's a household word.

KRAZY GLUE is also a top-quality industrial grade adhesive.

And now KRAZY GLUE offers this same industrial quality to all hobbyists with their complete line of KRAZY GLUE hobby glues.

KRAZY GLUE THIN FAST WHITE CAP. The thinnest, fastest (3 seconds) instant glue made. For high speed bonding of balsa, plastic, rubber, metal and ceramics.

KRAZY GLUE MEDIUM THICK BLUE CAP. Thick enough to bond both porous and non-porous materials. Penetrates porous materials for greater bond strength.

KRAZY GLUE THICK GAP FILLING GREEN CAP. Extra thick for filling gaps and forming fillets. Its extra slow setting time allows for positioning of parts.

Each glue comes with a dispenser tip that allows you to position a precise drop exactly where you want it.

KRAZY GLUE also offers two types of epoxy glue, a white glue, and a carpenters wood glue. So no matter what you're bonding, for sure-fire success, stick with the leader!



KRAZY GLUE INC., 53 West 23rd Street, N.Y., N.Y. 10010 (212) 807-3844

Just a sampling of the available hobby super glues. Cyanoacrylates and their accessories are safe — and invaluable — compounds if handled properly.



Modeling with cyanoacrylate glues

Super techniques for super glue

FINESCALE MODELER: Paul A. Erler

BY LLOYD S. JONES

CYANOACRYLATE ADHESIVES, commonly known as super glues, are relatively new to modeling. They have been around for a while, but now they are priced within reach of the average hobbyist. When first developed in the early 1950s, the cost of a bottle of super glue was far beyond the means of most modelers. Today, production of the material has increased so it is less expensive. As you will see in this article, super glues can be used to solve a number of modeling problems.

Just what are super glues? Chemically, they are liquid monomers which polymerize rapidly in the presence of moisture. Water vapor in the air acts as a catalyst, changing super glue from liquid to solid in a few seconds. In the early 1950s, chemists at Eastman Kodak accidentally mixed up a batch of ethyl cyanoacrylate fluid during a search for rapid-setting film-splicing cement. During their experiments, super glue was placed between two pieces of glass for examination and they were surprised at its rapid polymerization. Further development resulted in Eastman 910, the first commercially available super glue. Nowadays there are dozens of brands, and according to Ste-

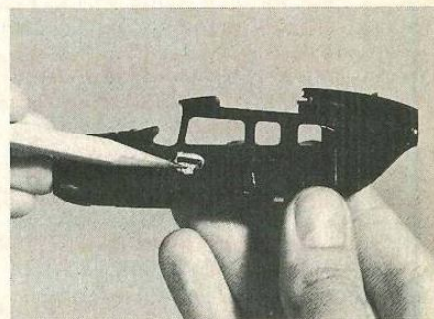
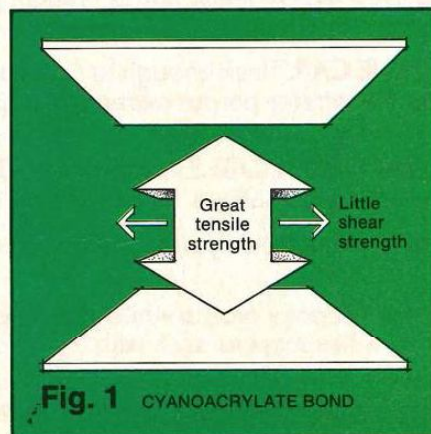
phen Foster of Krazy Glue, Inc., sales of this family of adhesives have grown from less than \$1 million in 1974 to nearly \$50 million in 1980.

Most hobby super glues are ethyl (as opposed to methyl or iso) cyanoacrylates. For our purposes, the main difference between ethyl and methyl is proper storage. Both types can be stored in a refrigerator to extend their normal shelf life from about six months up to a year. However, ethyl can be frozen to extend its useful life indefinitely. Since moisture in the air is the catalyst for these adhesives, it is im-

portant to keep them properly capped, both in and out of the refrigerator.

Advantages and disadvantages. The main advantage of super glues is speed — construction, filling, and repair take much less time using super glues. They bond dissimilar materials, such as plastic to metal, metal to wood, and so forth. Cyanoacrylate bonds are strong, but despite its excellent tensile strength, super glue does not have great shear strength — it can be broken free easily with sideways stress, Fig. 1.

Another significant problem is the



FINESCALE MODELER: Paul A. Erler

Fig. 2. Sometimes a white frosty deposit will form on super glue as it sets. "Chlorosis" can be removed by wiping the area with a solvent or scraping it off with a knife.



FINESCALE MODELER: Paul A. Erler

Fig. 3. Super glue accelerators. Most come in spray bottles but they can also be applied with a brush or toothpick.



FINESCALE MODELER: Paul A. Erler

Fig. 4. Super glue solvents are based on acetone or nitromethane. A cheap alternative is acetone-based nail polish remover.

tendency of super glue to fog around the edges of a joint, Fig. 2, especially noticeable inside cockpit canopies. This is chlorosis, the formation of white precipitate of cured polymer deposited on or near the bond. In spite of its appearance, it does not affect the strength of the bond. Chlorosis is caused by using too much adhesive, by high humidity, or by trapping the adhesive in an airtight area as it cures. The latter commonly occurs when internal parts are cemented and the fuselage is sealed around them. If the canopy is attached before the super glue has cured, chlorosis will fog the inside of the canopy.

A well-ventilated, dry work area helps prevent chlorosis. The fumes from super glues and their accessories can be irritating so a small electric fan or hair dryer blowing across the workbench will help prevent chlorosis and allow you to breathe easier. (See the box on page 40.) The white deposits can easily be removed if you can get to them — a gentle wipe with denatured alcohol, acetone, or super glue solvent will eliminate them.

Using a super glue accelerator, Fig. 3, reduces the formation of chlorosis since it makes large applications of glue set up quicker. When attaching a canopy, use small drops of super glue applied with a pin. The canopy attachment doesn't have to be that strong anyway; how often do you pick up a model by its canopy?

If you need to dissolve or remove dried super glue, use a super glue solvent, Fig. 4. These liquify the adhesive, allowing you to remove or relocate the part. Any super glue remaining when the solvent evaporates continues to hold as a cement.

AWACS project. I built my 1/144 scale Boeing E-3A Sentry (AWACS), Fig. 5, using parts from the Airfix 707 (No. 04170-0) and Revell AWACS (No. 4422) kits. The combination of these

kits produced an accurate AWACS and presented an excellent opportunity to solve modeling problems with super glues.

For this project, I used Krazy Glue

brand cements and accelerator. Krazy Glue Green top is slow setting (24 seconds), thick, and capable of filling small gaps. Krazy Glue White top is fast setting (5 to 20 seconds), water

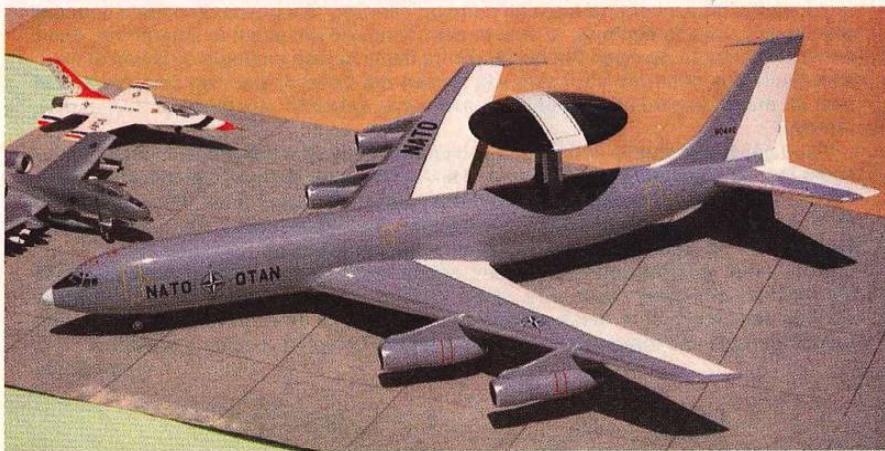


Fig. 5. Lloyd's completed 1/144 scale Boeing E-3A Sentry (AWACS) was built using super glue as a filler as well as an adhesive. Parts from both Revell's AWACS and Airfix's 707 kits were combined to make an accurate replica.

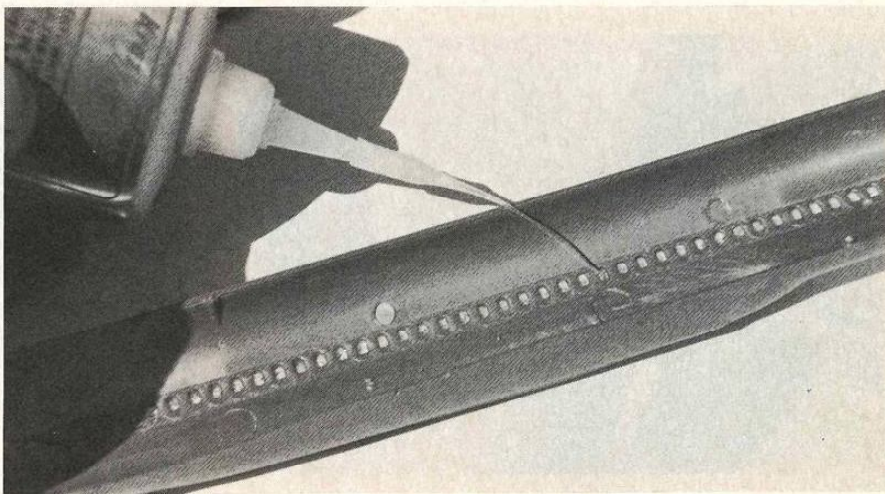


Fig. 6. Gap-filling super glue was used to fill the airliner windows in the Airfix fuselage. Cellophane tape was used outside the fuselage to hold in the glue.

THE HAZARDS OF SUPER GLUE

Recently, rumors have circulated that cyanoacrylate glues (super glues) can release toxic gases, cause cancer, ignite at relatively low temperatures, glue your fingers together forever, and so forth. There are certain dangers in using any chemical. For instance, water can kill you — if you get enough of it in your lungs.

In September, FSM wrote to 15 super glue manufacturers and distributors, asking them about super glue hazards. Four companies responded. We also wrote to the U. S. Consumer Product Safety Commission, but did not receive a response.

The rumor that mixing super glue and baking soda releases cyanide gas is groundless. One manufacturer described the white smoke as "a precipitate from the exothermic reaction and rapid curing of the polymers." In other words, the baking soda makes the cyanoacrylate set rapidly and the fumes and tiny particles of cured super glue are given off. These particles also cause chlorosis (see main text).

Another said "there are no free cyanide radicals in, or given off by super glues." Yes, they are acrid fumes that irritate mucous membranes in the eyes, nose, and throat, but they are not cyanide. If they were, a lot of you (and I) would be long dead. Cyanide gas is not an accumulative poison like arsenic — absorb a little today, a little tomorrow, and eventually you're dead. Cyanide is quick, deadly, and NOT released by super glue.

There is no evidence to support the rumor that super glues are carcinogens (cause cancer). Perhaps it's too early to tell. Super glues have been used as chemical sutures in surgery, and I doubt that surgeons have been lacing our bodies with a known carcinogen.

The flash point (temperature at which a substance can ignite under ideal conditions) of most hobby super glues varies between 180 and 200 degrees Fahrenheit. By comparison the flash point of mineral spirits (enamel paint thinner) is 120 degrees Fahrenheit.

That's not to say that these chemicals don't deserve lots of respect. Super glues are powerful adhesives and must be handled carefully. It's possible to bond a model to your skin, skin to clothing, or skin to skin. If you do get stuck to something, don't panic. If you try to rip open the bond, you're likely to lose a couple of layers of skin. Eventually, the oils from your skin will loosen the bond or you can dissolve it with one of the commercially available super glue solvents, acetone, or nail polish remover.

If you get super glue in your eye, it will immediately shut since it is irritated by the substance. Immediately rinse your eye with lots of water and call a physician. If your eyelids are glued shut, don't try to pull them apart and don't flush them with super glue solvents of any kind. Again, don't panic; the natural moisture in the eye will break down the bond and the eyelids will open in a few days.

Most super glue containers include safety instructions — make sure you read them before using any super glue. And if your household includes small children or curious pets, make sure these adhesives — along with other potentially dangerous modeling tools and materials — are safely stored between modeling sessions.

Paul Boyer

thin, and good for general construction. Krazy Glue Blue top is slow setting (60 seconds), thin, and formulated for use on porous materials. Other brands (see the box on page 41) include similar

products with varying setting times and viscosities.

While the engines and rotodome from the Revell kit are correct, the basic airframe is a 707-120, the first air-

liner version of the famous Boeing jet. The E-3A, however, is based on the 707-320 series, with a longer fuselage and different wings. The Airfix kit represents a 707-420, similar to the 707-320, so it was used for this model.

First, I eliminated the passenger windows in the Airfix fuselage by placing a strip of transparent tape over the window openings from the outside, and filling each window from the inside with a drop of gap-filling super glue, Fig. 6. Since these fillings were thick, I used accelerator to speed up the cure of the super glue. However, care must be used as accelerators can damage painted surfaces. Accelerators are sprayed directly onto the adhesive or individual drops are placed with a toothpick. On large areas, super glue set with accelerator can shrink slightly, but in this case it did not. If necessary, a second application of super glue and accelerator would make up for the shrinkage.

This tape method produces filled windows that only need minor sanding. A few windows had tiny pits caused by bubbles; each was filled with a drop of super glue applied with a toothpick, followed by a light wet sanding. Once dry, super glue can be sanded, carved, scribed, and polished just like plastic.

Construction. Solvent-type cements dissolve styrene plastic and weld joints, but take at least 20 minutes to set hard. By applying a solvent cement first, Fig. 7, then using a drop or two of super glue, Fig. 8, a strong joint can be made. In this application super glue acts as a jig to support the part as the solvent dissolves the plastic and sets up.

I experimented by cementing scrap fuselage halves with solvent, then covering the seam with a bead of gap-filling super glue. After it set up, I filed and sanded the seam smooth, the super glue acting as a filler. However, shortly after the fuselage was painted the seam began to sink. Apparently, while

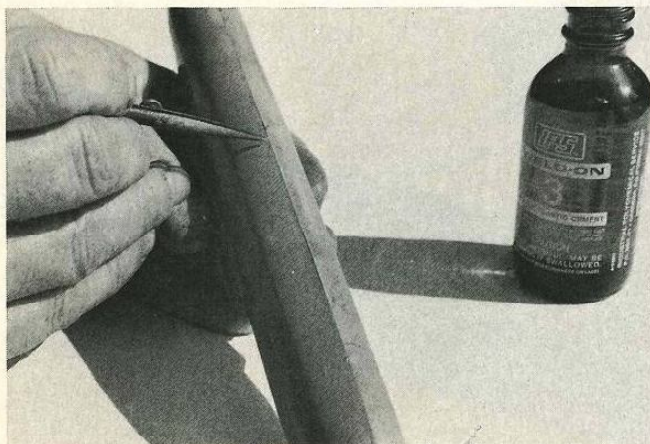


Fig. 7. After the inside of the fuselage was sprayed with accelerator, the fuselage halves were cemented together using liquid solvent cement applied with a ruling pen.



Fig. 8. A bead of gap-filling super glue acts as a filler as well as an adhesive. Any super glue seeping through the seam will be hardened by the accelerator sprayed inside the fuselage. The combination of solvent cement and super glue makes an extremely strong joint.

BRAND NAME	COMPANY	THIN	THICK	SPECIAL	ACCELERATOR	SOLVENT
WONDER BOND	Borden Inc. 180 E. Broad St. Columbus, OH 43215	Elmer's Wonder Bond				
SUCCESS	Bostik, Emhart Corp. P. O. Box 3716 Reading, PA 19605	Instant Success Success II				
SUPER JET	Carl Goldberg Models, Inc. 4732 W. Chicago Ave. Chicago, IL 60651		Super Jet	Super Woody	X-Cel	
KRAZY GLUE	Krazy Glue, Inc. 53 W. 23rd St. New York, NY 10010	White top	Green top	Blue top KG666 Foam Primer	KG665	KG667
DURADIX	Mascot (formerly Maxon) Div. of Grobet File Co. of America, Inc. 750 Washington Ave. Carlstadt, NJ 07072	Duradix				
ZAP	Pacer Technology & Resources, Inc. 1600 Dell Ave. Campbell, CA 95008	Zap CA Plasti Zap CA + +	Zapagap Slo Zap	Z-FP foam primer	Zip Kicker	Z-7 Debonder
PERMABOND	Permabond International Corp. 480 S. Dean St. Englewood, NJ 07631	910 Adhesive	Permabond 200			
HOT STUFF	Satellite City P. O. Box 836 Simi, CA 93062	Hot Stuff	Hot Stuff Super T		Hot Shot	
SUPER GLUE	Super Glue Corp. 184-08 Jamaica Ave. Hollis, NY 11423	Super Glue		Super Glue for wood and leather Drop-Matic Non-clogging Glue Pen		Super Glue remover

the super glue was setting up from the outside, some of it was seeping into the joint, causing the external skin to sink.

On my next try, I sprayed the inside of the fuselage with accelerator, then cemented the halves together with solvent cement. The accelerator remains active for up to eight hours. This time,

the accelerator inside reacted with the super glue as it seeped into the joint, hardening it instantly from the inside out. This procedure worked perfectly with no seam shrinkage, so I used it in the E-3 project.

The peculiar construction of the Airfix 707 wings creates a $\frac{1}{32}$ " gap in front

of the flaps and ailerons on top of the wing, and another gap just behind the leading edge on the bottom. I used gap-filling super glue to fill them, Fig. 9. Since these gaps were deep (they open into the hollow wings), they needed more than one application to fill. Rather than pour in super glue and fill

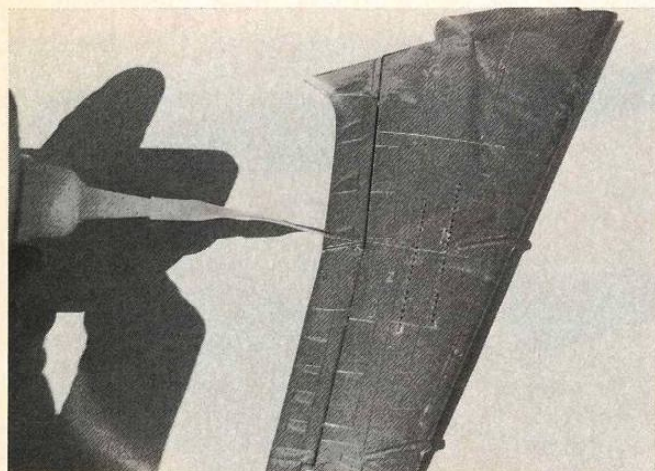


Fig. 9. Gap-filling super glue fills in the seams on the wings. Accelerator prevents the glue from seeping into the hollow wing.

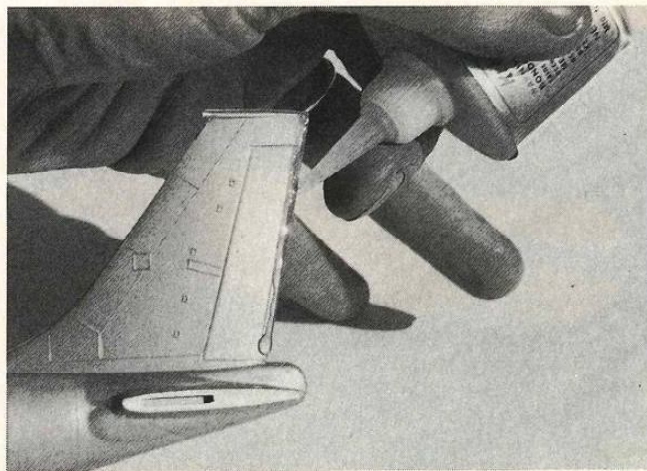


Fig. 10. A bead of gap-filling super glue was used to build up the incompletely molded trailing edge of the rudder.



Fig. 11. The extended wing tips were built up with Ultra Filler No. 14, attached with super glue, and shaped with a file.

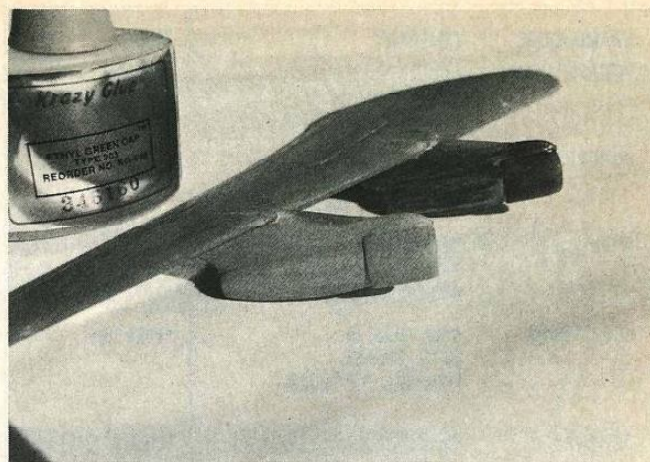


Fig. 12. The pylon outline was corrected by adding a piece of styrene. Gap-filling super glue was used to fill the gaps.

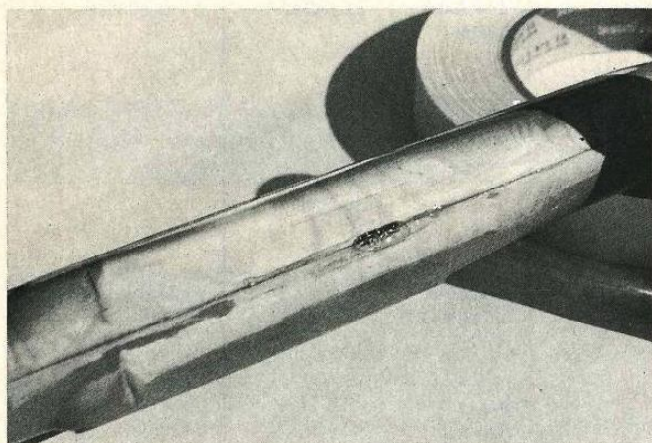
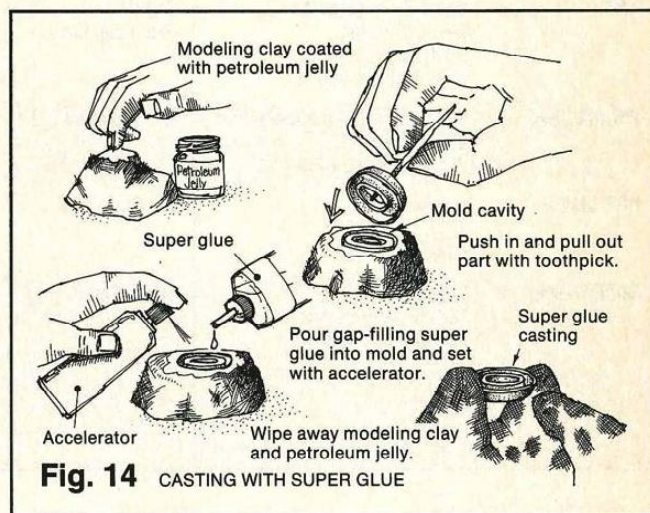


Fig. 13. A generous application of super glue was used to fill the stand slot in the fuselage belly.



the inside of the wing, I stopped the first application's travel with accelerator. The second application brought the filler level with the surrounding area.

I also used gap-filling super glue to fill in the incompletely molded trailing edge of the rudder, Fig. 10.

Super glue is also handy for bonding filler putty to styrene. I formed the extended wing tips for the E-3 by mixing a batch of Ultra Filler No. 14* on a

*Model Car Masterpieces, 1525 West MacArthur Boulevard, Costa Mesa, CA 92626.

piece of paper, then stuck the wing tip into the blob of putty while it hardened. When it had set up, I broke it away, then cemented it back onto the wing tip with super glue. Within a minute, I could carve and file the putty to form the new tip shape, Fig. 11. De-

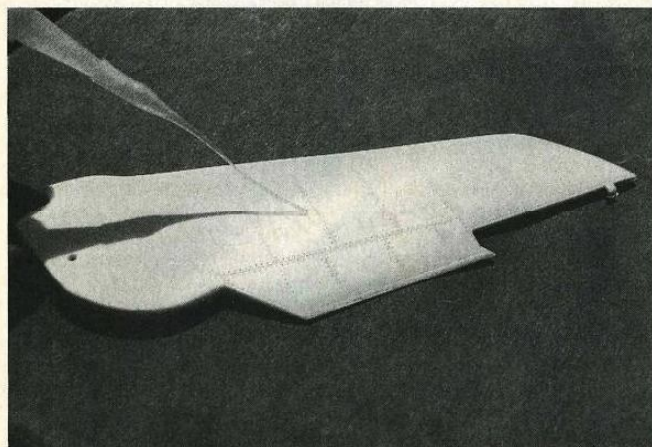


Fig. 15. Using the dispenser tip, the scribed marking lines on Revell's X-5 were filled with super glue and sanded smooth.



Fig. 16. Now the wing has a realistic finish. Note recessed rivets remain but the recessed marking lines are gone.

spite all the stress placed on the glued joint, it never broke or cracked.

The Revell kit features the turbofan nacelles used by the E-3, but the leading edges of the pylons curve down too much. To correct them, I cemented small pieces of plastic dowel across the curves to form new leading edges, Fig. 12. The $\frac{1}{32}$ " gap between the dowel and the pylon was filled with two applications of gap-filling super glue and sanded smooth. The largest opening I have filled with gap-filling super glue is $\frac{3}{8}$ " by $\frac{1}{4}$ ". Since subsequent applications of super glue don't dissolve previous layers, relatively large openings can be filled in a couple of minutes, Fig. 13.

After super glue has been sanded smooth it can be polished to a high gloss with silver cream, metal polish, plastic polish, or rubbing compound. If used as a filler, it should be primed prior to finishing.

Super glue is perfect to fill the hollow prop blades and landing gear strut halves commonly found in vacuum-formed kits. Just fill them with gap-filling super glue, remove them from the backing sheet, and sand the edges as usual. For added rigidity on larger models, place a pin or wire in the part before filling it with super glue.

Casting parts with super glue. Super glue can be used to cast small parts in modeling clay molds. This is especially valuable for duplicating pieces for conversions or scratchbuilt models. The part will be flat on one side, so two opposite halves must be made for round objects. To make a mold, simply coat a block of modeling clay with petroleum jelly, then press the original (pattern) into the block, Fig. 14. Place the original on a pin or toothpick so it can be easily removed. Be careful to gently push straight down and pull straight up to avoid distorting the mold cavity.

To make the casting, fill the cavity in the clay with gap-filling super glue, then spray with accelerator to harden the glue, Fig. 14. Remove the casting by peeling the clay away, remove the petroleum jelly by wiping with denatured alcohol, then rinse in warm, soapy water. If two halves are required, repeat the process with the opposite half, and cement the parts together.

Filling engraved lines. Many early plastic models were produced with the markings engraved on the parts. Some were raised, and can easily be removed by sanding, but removing recessed lines is difficult. For example, Revell's Bell X-5 (No. 8619) is a beautiful kit, but marred with recessed markings.

To fill the markings I used a needle-pointed dispenser tip and simply traced the recessed design with a trail of thin super glue, Fig. 15. These small dispenser tips come with many brands of super glue or are available separately.

COMBAT SERIES

MILITARY HARDWARE IN BRASS

Here is an enlarged photo of our 50 cal., Machine gun, with WW-11 Cradle on M-3 Ring Mount. IT'S ALL THERE!

Applicable to 1/32, 1/35 scales

To receive our latest illustrated Catalog Sheets, send a **STAMPED SELF ADDRESSED** envelope to **COMBAT SERIES**.



•COMBAT SERIES•
Dept. ML, P.O. Box 475, Pinedale, CA. 93650

Looking For The Best In Kits And Supplies???

Featuring:

Heller	Nichimo	Williams	Dumas
Koppro	Tamiya	TOMY	Billings
Imai	Otaki	Cap Croix	Aeropicolla
Bandai	ESCI	Revell (E)	Scientific
Italeri	Ertl	Revell (J)	Art Latina
Minicraft	Revell	Plasticart	Dikar
Airfix	Monogram	Lindberg	Corel
Starfix	Johan	Hasegawa	Blue Jacket
Kurton	MPC	Fujimi	Midwest
Nitto	Matchbox	Pocher	Constructo
Protar	LS	Revival	Guillows
Skywave	Aoshima	Atlantic	Sterling

These are just a few of the many fine lines we carry which includes a full line of tools, paints and books to meet every modeler's needs.

More Than Just A Catalog!!!

Charleston Hobbies catalog is more than just another product listing.

It's a complete cross reference of currently available kits —
by description, scale and manufacturer.

Send \$6.95 For Your Copy

Charleston Hobbies

P.O. Box 30685, Charleston, SC 29407

TOLL FREE HOTLINE: 1-800-334-5815

(803) 763-1429 (In S.C.)



Museum Quality Miniatures



Creators of historical miniatures for museums and collectors for over 30 years. Look for our "Ragtag Drummerboy" at your local hobby supplier. Our complete Catalog 155, fully illustrated with photos of our 54 mm and 76 mm kits, is available direct from us for \$3.00.

I/R MINIATURES, INC.
P.O. BOX 89, Dept. M
Burnt Hills, NY 12027, U.S.A.



Paul Freiler's HISTORICAL MODELS

19510 Hawthorne Blvd
Torrance, California 90503

(213) 542-6391

Hours: Mon-Sat 10-9, Sun and Holidays 11-6

SPECIALIZING IN PLASTIC KITS

- Aircraft
- Automobile
- Armor
- Ships

TOOLS

- Unimat
- Dremel
- X-acto
- Paasche

GAMES

- Software
- Strategy
- D&D
- RPG

BOOKS

- Aircraft
- Automobile
- Ships
- Armor

ALL MAJOR MODELS AND MAGAZINES—BOTH FOREIGN AND DOMESTIC

- MICROSCALE, SCALE MASTER, ATP, FOWLER, ETC. DECALS
- POLLY S, FLOQUIL, HUMBROL, PACTRA, TESTORS, TAMIYA, PAINTS
- HO TRAINS AND ACCESSORIES

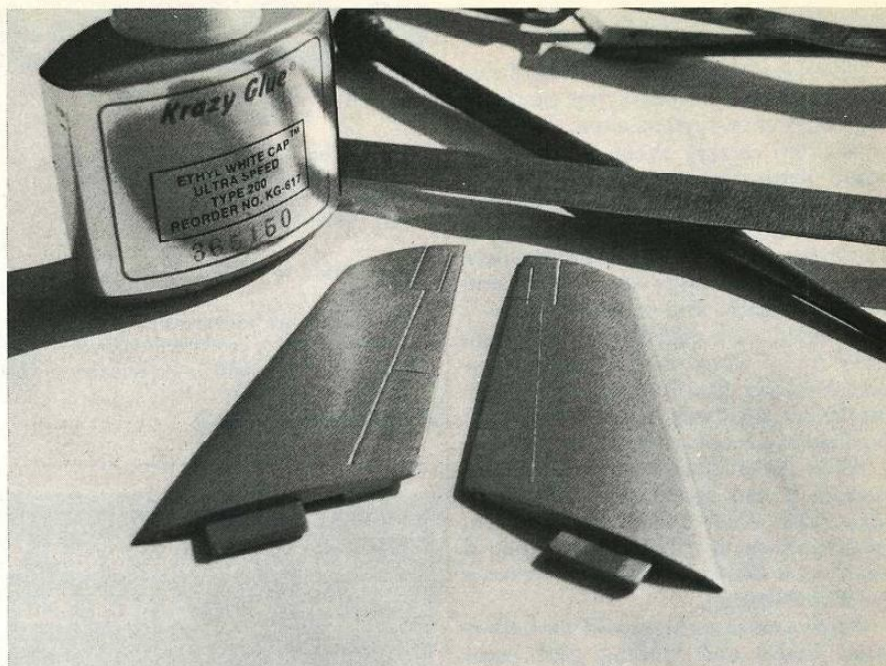


Fig. 17. (Left) The original wing had flap hinge lines that were too deeply recessed. (Right) This wing has had the flap hinge line filled with super glue, sanded smooth, and rescribed with a stylus.



Fig. 18. This rubber tire on a Williams Brothers 1/72 scale Martin B-10 had split.

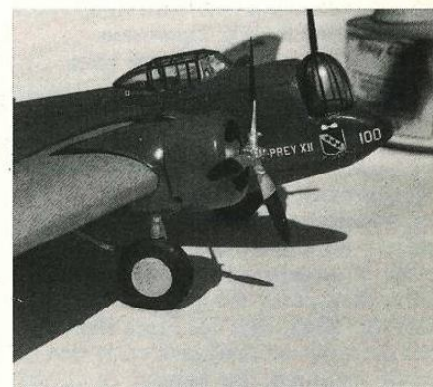


Fig. 19. Super glue formulated for porous surfaces was used to repair the split. A light sanding with fine-grit sandpaper made the joint invisible.

I placed the super glue exactly on the design I wanted to remove, keeping it out of the recessed rivets I wanted to retain. When the super glue had hardened, it was a simple job to wet sand the area flush and polish the surface prior to painting, Fig. 16.

This process can also be used to reduce or eliminate out-of-scale engraved panel lines, Fig. 17. After polishing the surface, finer panel lines can be added with a fine-pointed scribe.

Super glue can be used to repair rubber or neoprene plastic, such as that found in Williams Brothers aircraft kit tires. Using super glue formulated for porous materials, I repaired a split tire right on the wheel of a finished model, Fig. 18. I applied the cement directly to the split and squeezed the tire together

for about a minute while it set up. The bond was good and tight, but the joint was visible because the cement was shiny. A few swipes with 600-grit sandpaper removed the shine and the joint became invisible, Fig. 19.

Some cyanoacrylates dissolve expanded plastic foams used in scratch-built models and diorama groundwork. Foam primers are available that can be sprayed on to create a hard crust barrier between the foam and the super glue. Each piece of crusted foam can then be bonded with super glue.

As super glues become more widely used, modelers will discover even more uses for them. If you haven't tried them yet, you should. I think once you get used to them you won't be able to do without them.

FSM

Spend \$105,000 for the real thing.



Or save a bundle and build this Lamborghini Countach 1:12 scale model all by yourself.

"This is a bad boy's car, and everybody knows it."

That's what *Car and Driver* magazine said about the Lamborghini Countach after they tested it. They likened its effect on passersby to the looks you'd get if you walked down Fifth Avenue with Pia Zadora, were she all dressed up in about eight yards of Saran Wrap.

The Countach is an outrageous car. A shocking car. An angry car for the automotive extremist for whom too much is never quite enough. It is, as *Car and Driver* summed up, "the flat-out farthest-out car on the market."

Build this dream machine and add a new dimension to a fascinating hobby.

When you open the Lamborghini kit, you'll find nearly 300 multi-colored, chromed, and metalized parts that assure incredible detail. The metal coil spring suspension really works. And even the ignition wires for all twelve spark plugs are true to scale—connecting the dual distributors and coils. You get a lug wrench to change your wheels, and the tires are real rubber. Doors, trunk, and hood are operational. Headlights pop open and shut. And the sealed beams and rear lights—light! (Although you'll have to supply your own batteries.)

**A Challenge for the Beginner.
A Trophy for the Expert.**

No special skills are needed to build the Lamborghini Countach. Plans and instructions are complete and easy to follow, and will satisfy even the most hard to please. If you're into modeling—any kind of modeling—you'll thoroughly enjoy the completeness of the kit, and the beauty of the finished model, which you can finish, paint and customize in a variety of ways. It's a project you'll display with pride at home, den or office.

But we've saved the best for last. Your cost for this 15" long exotic GT is just \$39.95. That's right! \$39.95 for the complete kit—less than

a good tune up for the wheels you're driving now!

Mr. Lamborghini set out to create an Italian automobile that would blow the competition off the road. With a little effort, you can do the same in model form.

To order your Lamborghini Countach kit, just fill out and mail the coupon below. Or, for fastest service on credit card orders, call **TOLL-FREE**

800-228-2028, ext. 36,
24 hours/day.

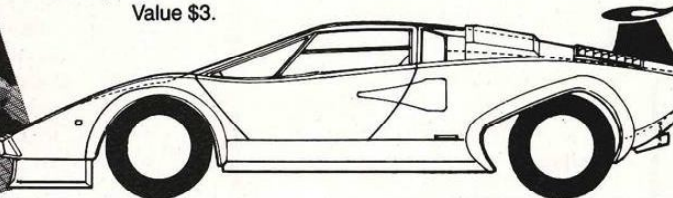
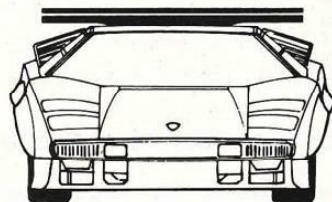
In Nebraska, call 800-642-8300, ext. 36.

EXTRA BONUS! Free with your order! Full color, 116-page catalog of other car kits you can build, or collectible models you can buy. Plus wooden and plastic ship kits, planes, trains, and more. Value \$3.



Model Expo, Inc.

23 Just Road, Fairfield, NJ 07007



Mail to:
MODEL EXPO, INC.

23 Just Road, Fairfield, NJ 07007

YES! Please send me the Lamborghini Countach Kit (No. OT-3107) for just \$39.95.

☐ My check or money order is enclosed. (Please add \$4 per order for postage and handling. N. J. residents must add 6% sales tax.)

YOU TAKE NO RISK.

IF NOT COMPLETELY SATISFIED RETURN WITHIN 30 DAYS FOR FULL REFUND.

Charge my credit card:

☐ MasterCard ☐ Visa ☐ American Express

Dept. FSM-55

Account No.

Exp. Date

Signature

Name

Address

City

State

Zip



Dunbar Miniatures

3 Bywood Lane
Trenton, N.J. 08628

Selection - Quality - Service
20 YEARS EXPERIENCE

Finest Military Figures
for the serious hobbyist
54mm - 154mm

- PERSONALLY SELECTED -
- MAJOR MANUFACTURERS -
- LARGE CURRENT INVENTORY -

Discount Price List

SEND \$2 FOR DESCRIPTIVE LISTINGS
REFUNDABLE WITH FIRST ORDER

PLASTIC MILITARY MODELS



San Diego's only hobby store
devoted **exclusively** to the
plastic modeler.

We carry a full range of
domestic and foreign made
kits, including vacuforms.

We also have decals, paints,
books and airbrushes. In addition
to military models, we carry
an extensive line of plastic
car kits.

16769 Bernardo Center Dr.
San Diego, CA 92128
451-3591

One of the largest se-
lections of plastic kits
in the state with over 2000
square feet of aircraft,
cars, trucks, and military
models.

Plus one of the largest
selections of die cast
vehicles anywhere.

Open every night til 8 p.m.

Master Charge/Visa accepted.

"You'll love the prices, too!"

HAROLD'S PLACE, INC.
522 Chestnut St., Lynn,
MA 01904

AMERICAN DRESS AND DETAIL

Number 6 in a series

22ND VIRGINIA BATTALION CONFEDERATE STATES OF AMERICA CIVIL WAR, 1862

BY R. J. STAFFORD
ARTWORK BY THE AUTHOR

IN MAY 1862 several companies from the 9th Virginia, the 87th Virginia, and the 2nd Virginia Artillery were reorganized into the 22nd Virginia Battalion. The unit's first assignment was in June 1862 to A. P. Hill's Light Division, where it was brigaded with the 40th, 47th, and 57th Virginia.

The 22nd Battalion fought in 42 engagements, including Malvern Hill, Second Manassas (Bull Run), Sharpsburg (Antietam), Fredericksburg, Chancellorsville, Gettysburg, the Wilderness, Cold Harbor, and Petersburg. With Heth's Division on the first day of Gettysburg, the 22nd fought in Pickett's Charge, during which members of the unit reached the wall before being forced back. The 22nd was disbanded in December 1864 and its members were distributed to other units.

The illustration shows three members of the regiment in late 1862 — fairly early in the war when their uniforms were still recognizable. The corporal on the left wears the basic Confederate gray uniform with a bowie knife on his right hip, and a brown leather cartridge box with brown belting has replaced the regulation black box. The circular buckles are also nonregulation. The shirt under the jacket is civilian, and colors and styles of this item varied widely. Early in the war when the men still had shoes they usually wore what they had upon enlistment.

The first sergeant on the right wears a pair of Union trousers. In lieu of gaiters he has tucked the trousers into heavy woolen stockings to protect his skin. His canteen is issue, but the cup is a reworked tin can — the "22" is the regimental insignia; "Zak" is the sergeant's name. He carries a pistol that was probably removed from a Union officer.

The uniform on the private (center) is close to regulation, but he also carries a bowie knife and an extra haversack. The patches were, of course, just that, added to repair torn items. All three men retain their kepis (or forage hats), which feature a brass "22," a bugle (the infantry insignia), and the company letter ("G" and "N" are shown). Hair was worn long but after months in the field was unruly and untrimmed.

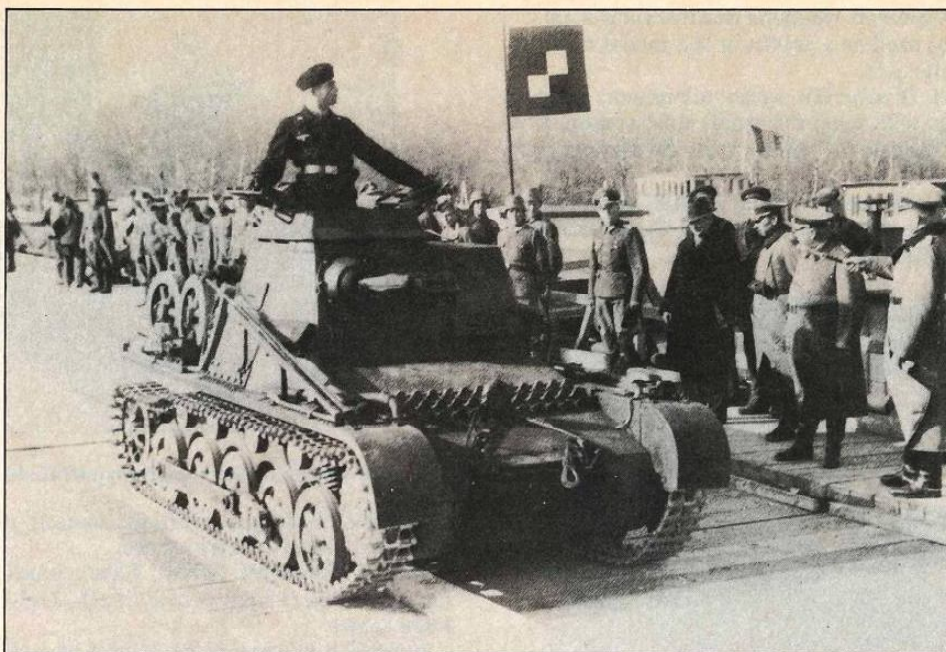
As the war progressed Confederate uniforms became more haphazard — in fact, they ceased to be uniforms at all — and many photos show men who appear as ragged as hobos.

FSM

REFERENCES

- Blake, Michael, *American Civil War Infantry*.
- Elting, John R. and Michael J. McAfee, *Military Uniforms in America, Vol. III, Long Endure: The Civil War Period*, The Company of Military Historians, Presidio Press, Novato, California, 1982.
- Todd, Frederick P., *American Military Equipment, 1851-1872*, Frederick P. Todd Associates, Providence, Rhode Island, 1974-78.
- Records of Private John Gardner, Company G, 22nd Virginia Battalion. Special thanks to 1st Sgt. John Zak, Company G, 22nd Virginia Battalion, a living history reenactment unit.





Photos from the author's collection

A 1941 photo of a *kleiner Befehlspanzer I*, or small armored command vehicle, built on the chassis of a PzKpfw I Ausf B. A fixed superstructure replaced the revolving turret of the tank, and the lack of main armament left space for radio equipment and a map table.

German armor terms and abbreviations

What's an "SdKfz," anyway?

BY BRUCE CULVER

BOOKS AND ARTICLES on World War Two German military vehicles often employ complicated German words — and mysterious abbreviations — as nomenclature for armored vehicles, weapons, and equipment. In this glossary I'll explain some of the more commonly used designations related to German armor and weapons. By understanding these technical terms and their abbreviations you'll know the functions and relationships of the various weapons and equipment. Abbreviations are listed in parentheses after the term.

Abteilung (Abt): a detachment or group; in German armored units, an Abteilung was usually half of a regiment and was considered the equivalent of a battalion.

Alte: old; this term was used to designate an older version of a weapon or vehicle which existed in both old and new (or redesigned) forms, when there was no model designation to denote such differences.

Aufklärung (Aufkl): reconnaissance; *Aufklärungs Abteilung* was a reconnaissance battalion; *Aufklärer*, a reconnaissance vehicle; *Aufklärungspanzer*, an armored reconnaissance vehicle.

Ausführung (Ausf): model or type; used to denote different versions or modifications of a basic vehicle design.

Befehlswagen (BefWg): command vehicle; usually a converted tank or specially built command vehicle with extra radio equipment for command-level communications. Also often called *Befehlspanzer* if built on a tank chassis or converted from a tank.

Bergepanzer: armored recovery vehicle; usually a converted tank or a specially designed vehicle built on a tank

chassis. They were usually fitted with winches and towing equipment.

centimeter (cm): the unit of measurement used to denote bore sizes of all German weapons 2 cm (20 mm) and larger. The only exception was the Mauser MG151 aircraft cannon, which was originally built as a 15 mm weapon.

Drilling: triple; usually referred to the triple mount of MG151 guns in the SdKfz 251/21 *FlaK SPW*.

Einheits (E, Einh): universal, standardized; used to identify vehicles designed to a standard mechanical specification. This type of vehicle was best typified by the various (standardized) Einheits 4 x 4 cars and light trucks designed in the 1930s.

Fahrerblende: driver's visor; usually a fixed device. *Fahrersekappe* denoted a movable visor that could be opened, such as those on armored cars and armored half-tracks.

Fahrgestell (Fgst): chassis; identified the chassis used to mount a self-propelled gun or howitzer. This designation was necessary because several different chassis designs often carried the same type of weapon.

Feldhaubitze (FH): field howitzer; this denoted a tower howitzer (a high-angle-of-fire artillery piece).

Feldkanone (FK): field gun; this denoted a towed gun (a long-range, low-angle-of-fire artillery piece).

Flakpanzer (Flakpz): armored anti-aircraft vehicle; generally built on a light tank chassis, though heavier models used the PzKpfw IV medium tank chassis.

Flammpanzer (Fl): a model suffix used to denote flame-thrower tanks, for example, *PzKpfw III (Fl)*.

Fliegerabwehrkanone (FlaK): anti-aircraft gun; used to denote anti-aircraft guns 2 cm or more in bore diameter.

FlaMG denoted anti-aircraft weapons smaller than 2 cm.

Funk (Fu): radio; used as a prefix in the model designations of German radio sets.

Funksprechgerät (FuSprG): radio telephone; used to identify short-range sets used for small unit communications, such as the *FuSprG* "F" used in the SdKfz 251 half-track.

gepanzert (gep): armored; used to identify armored infantry carriers, since early in the war most German motorized infantry rode in trucks.



This *gep MTW* is an SdKfz 251/1 Ausf A.

gepanzelter Mannschaftstransportwagen (gep MTW): armored personnel carrier (APC); this was the original designation for the SdKfz 251.

Geschützwagen (GW): self-propelled gun carriage; this usually referred to types based on a fully tracked tank chassis with a lightly armored, open-topped superstructure.

Granate (Gr): shell, projectile; used in designations of various types of artillery ammunition, mostly explosive-filled shells.

Halbkettenfahrzeug (HK): half-track vehicle; used by some manufacturers in their model designations, and for experimental types.

Hanglafette: hanging gun mounting; a gimbal mounting (*Hanglafette 38*) developed for late-war reconnaissance vehicles. It did away with the heavy pedestal mount used on the SdKfz 222 armored car, allowing the mount to be used on several types of vehicles.

Infanteriegeschütz (IG): infantry gun; used to denote infantry support guns and howitzers.

Jagdpanzer (JgDPz, JgPz): tank destroyer (literally, "hunting tank"); used to denote the well-armored, closed-top, self-propelled antitank weapons used late in WWII, such as the JgPz IV and the JgPz38(t) "Hetzer."

Kampfwagenkanone (KwK): tank cannon; this type of weapon used a vertically sliding breech block, and had the recuperator (recoil) cylinders mounted on each side of the barrel. The breech design allowed faster loading, and the placement of the recuperator cylinders allowed mounting the gun in the standard wide tank gun mantlets.

Ketten: tracks; of a tank or other fully tracked or half-track vehicle.

Kleiner (Kl): small; used to designate a small item of equipment similar to larger models.

Kraftfahrzeug (Kfz): motor vehicle; used to designate vehicles that were essentially civilian designs, such as trucks, automobiles, and civilian pattern tractors.

Kubelwagen: literally, "bucket car"; used to describe various open-body military passenger cars, many of which had bucket seats for the crew. This term has come to be associated with the Volkswagen typ 82 light military passenger car.



The familiar Volkswagen typ 82 *Kubelwagen*.

Lafette (Laf): gun carriage; usually referred to the carriage of a towed artillery piece.

Lastkraftwagen (LKW, Lkw): truck; generally denoting a medium or heavy cargo truck, such as the Opel "Blitz" 3-ton series.

Lauf (L): length; of the barrel of a gun or howitzer, expressed as a multiple of the bore diameter. L/24 denotes a howitzer with a barrel length 24 times the bore diameter.

leichte (le): light; used to denote a light (or small) vehicle similar to larger or heavier designs. The SdKfz 250 was the "leSPW" (light armored personnel carrier).

Marder: literally, "marten" — an animal in the weasel family; this name was given to several self-propelled mounts for the 7.5 cm PaK 40 antitank gun.

Maschinengewehr (MG): machine gun; used to designate fully automatic weapons of less than 2 cm (20 mm) bore diameter. The 2 cm Oerlikon MGFF and Mauser MG151 were the exceptions; the MG151 was first issued as a 15 mm weapon, resulting in the MG name.

Maschinenkanone (MK): automatic cannon; used to denote automatic weapons with a bore diameter of 2 cm or more. Most of the MK weapons were belt-fed aircraft guns.

Maultier: literally, "mule"; the name given to the half-track conversions of several 3-ton and 4½-ton cargo trucks for service in Russia and other difficult terrain.

millimeter (mm): the unit of measurement used to denote bore diameters of less than 2 cm (20 mm).

mittlerer (m): medium; used to designate a medium size vehicle which was similar to larger and smaller types in a series, such as artillery tractors and military cars.

neuer Arte (nA): new model; used to denote a new design or revision of a vehicle for which no new official designation or model number was issued, such as the post-1943 version of the SdKfz 250 *leSPW*.

Ostketten: literally, "East tracks"; special wide tracks developed for the PzKpfw III and IV tanks for use in Russia during winter and spring. These tracks had long, flat extensions on the outer edges to reduce ground pressure in mud and snow.

Panzer Abteilung (PzAbt): tank battalion; generally consisting of an HQ company and four tank companies.

Panzerabwehrkanone (PAK, PaK): antitank gun; ballistically similar to the related tank gun (KwK). PaK weapons, like most field artillery, had horizontal sliding breech blocks to protect the breech from debris, and carried the recuperator cylinders below the barrels.

Panzerbefehlswagen (PzBfWg): armored command vehicle; a tank converted for use by armored unit commanders; sometimes called *Befehlspanzer*.

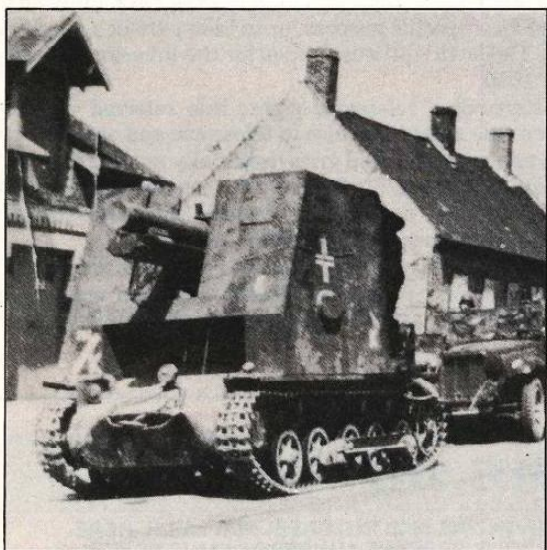
Panzergranate (PzGr): armor-piercing projectile; this term referred both to the explosive-filled AP round and the tungsten-core solid shot.



A *Panzerjäger I Ausf B*, this one with a 4.7 cm Czech antitank gun on a PzKpfw I chassis.

Panzerjäger (PzJag): tank destroyer; referred to lightly armored, open-topped, self-propelled antitank guns mounted on various converted tank chassis. The "Marder" vehicles were Panzerjäger designs.

Panzerkampfwagen (PzKpwwf): tank (literally, "armored battle vehicle"); used as a prefix in all German tank model designations: PzKpfw I, II, III, IV, etc.



A *Panzerselbstfahrlafette (PzSfl)* with a 15 cm sFH.

Panzerselbstfahrlafette (PzSfl): armored self-propelled artillery mounting. This term included both the *Panzerjäger* antitank mounts and self-propelled field artillery mountings.

Panzerpähwagen (PzSpWg): armored scout car; referred to wheeled armored cars, such as the 4 x 4 and 8 x 8 types, and the SdKfz 250/9 armored half-track reconnaissance vehicle.

Panzerwerfer (PzW): armored rocket launcher; mounted on the Opel armored "Maultier" half-track and the sWS armored half-track.

Patrone (Patr): round (of ammunition); used as part of the designation of various types of artillery and small arms ammunition.

Personenkraftwagen (PKW, Pkw): personnel carrier; referred to passenger cars, and the *Einheits* (standardized) military personnel and command cars. *E Pkw* referred to the *Einheits* vehicles specifically.



An SdKfz 251/7 Ausf C *Pionierpanzerwagen*.

Pionierpanzerwagen (PiPzWg): armored pioneer (engineer) vehicle; the most common examples were the SdKfz 251/5 and 251/7 half-tracks.

Raketepanzerbüchse (RPzB): antitank rocket launcher; a portable rocket launcher tube based on the design of the U. S. bazooka. The German designs had an 8.8 cm bore, and provided the basic design for the postwar U. S. 3.5" rocket launcher.



A *Raupenschlepper Ost* towing a 5 cm PaK 38.

Raupenschlepper Ost (RSO): literally, "Eastern front tracked tractor"; a fully tracked cargo truck designed for use by infantry units in snow or mud, originally intended primarily for the Russian front, but also used in the West.

Saukopf, Saukopfbende: boar's head mantlet; a late-war cast gun mantlet, smaller than the standard tank gun mounts, but offering thicker armor and better protection.

schmal: small; referred to the experimental turret developed for the Panther II. *Schmal* denoted the smaller size of the front armor plate of the turret; the interior volume was the same as the standard turret.

Schürzen: skirts; the armored plates fitted to hulls and turrets on many later tanks and assault guns to protect them from antitank rocket (bazooka) projectiles.

Schützenpanzerwagen (SPW): armored infantry carrier; armored personnel carrier, APC. The most common SPW was the SdKfz 251.

schwere (s): heavy; used to denote heavy or large weapons or vehicles similar to others which were lighter or smaller, but of the same general type of class, such as guns, howitzers, and artillery tractors.

schwere Feldhaubitze (sFH): heavy field howitzer.

schwere Feldkanone (sFK): heavy field gun; usually towed.

schwere Wehrmachtschlepper (sWS): heavy military tractor; intended to replace the 5-ton SdKfz 6 artillery tractor. Versions were built to carry cargo, and specially armored models carried the 3.7 cm FlaK 43 anti-aircraft gun or the 15 cm Panzerwerfer 42 rocket launcher. The latter had an enclosed, armored body to mount the launcher, while the former had only an armored cab.

Schwimmwagen: literally, "swimming car"; the amphibious Volkswagen typ 166, which featured a steel, tub-shaped body, propeller for water, and full four-wheel drive.

Selbstfahrlafette (Sfl): self-propelled gun carriage; without the *Panzer* prefix, this usually referred to the anti-tank and anti-aircraft guns mounted on artillery tractors.

Sockellafette: pedestal mounting; most commonly referred to the triple pedestal mount for the MG151 aircraft cannon. Used in the SdKfz 251/21 half-track, these gun mounts were also widely used as ground mounts and on railroad trains.

Sonder Anhänger (SdAnh): special-purpose trailer; usually referred to trailers used to tow light and medium flak guns, or to carry ammunition, fuel, or supplies.

Sonderkraftfahrzeug (SdKfz): special purpose vehicle; denoted those vehicles designed and built for tactical military uses. These types included artillery tractors, tanks, self-propelled weapons, SPWs, and armored cars.

Sprenggranate (SprGr): high-explosive shell; for field artillery.

Stab: staff, headquarters staff; *Stabskompanie* was the HQ company in a regiment or division.

Stielgranate: a hollow-charge anti-tank grenade developed to improve the effectiveness of obsolete anti-tank guns. The finned projectile was placed over the muzzle of the gun (typically the 3.7 cm PAK 36), and fired with a propellant charge.

Sturmgeschütz (StuG): assault gun; a heavily armored, turretless vehicle mounting a 7.5 cm gun or howitzer. Originally intended as support artillery, the StuG became an effective anti-tank weapon, being fitted with more and more powerful guns as the war progressed.

Sturmhaubitze (StuH): assault howitzer; a heavily armored support vehicle, mounting a 10.5 cm howitzer for use against enemy strongpoints or fortified positions.

Sturmkanone (StuK): assault cannon; developed from the related tank gun (KwK), this gun had the vertical sliding breech block of the KwK, but the recuperator cylinders were mounted side by side over the barrel. This resulted in a more compact mounting more suitable for the cramped design of a StuG.

Sturmpanzer (StuPz): armored assault vehicle; specifically the StuPz "Brummbär" (Grizzly Bear) built on the

PzKpfw IV chassis, and the "Sturmtiger," an assault rocket launcher built on the late Tiger I chassis.

Turn: turret; of a tank or armored car.

Versuchs (V): experimental; used to denote prototypes during vehicle development. Also used for aircraft prototypes.

Vierling: quadruple; referred to the multiple mounting of four 2 cm FlaK 38 guns on a single carriage (*Flakvierling 38*).

Waffenamt: the ordnance department; responsible for development of new weapons, and procurement after development was completed.

Waffenträger: weapons carrier; referred to the late-war self-propelled vehicles which carried weapons which could be dismounted from the vehicle. The vehicle itself then served as an ammunition carrier.

Werfer (W, Werf): projector or launcher; referred to mortars and rocket launchers.

Werkstatt Kompanie: workshop company; a repair and maintenance company in a tank regiment or battalion.



A Wurfrahmen on an SdKfz 251/1 Ausf C.

Wurfrahmen: rocket launcher rack or frame; used as field launchers, or mounted on various tactical vehicles, most often the SdKfz 251 mSPW.

zbV: for special purposes; used to designate a military unit formed for a specific purpose, or to take part in a specific campaign. *PzAbt zbV 40* was formed for the invasion of Scandinavia in 1940.

Zielfernrohr: telescopic sight; this referred not only to sniper's rifle sights, but also to telescopic and optical sights in tanks and on many field guns, especially anti-tank guns.

Zugkraftwagen (ZgKw): prime mover (artillery towing vehicle); usually denoted the various half-track tractors designed to tow most classes of field artillery.

Zwilling: twin, double; denoted a twin gun mount such as the *Flakzwilling 43*, or the MG81Z twin gun mount used in many German aircraft, usually as rear defensive armament.

FSM

The SOURCE For...

Casting resins and
mold making materials

"Make one or
one thousand
with Castolite."

Catalogue \$2.00

CASTOLITE

Dept. 85 E/FS
P.O. Box 391
Woodstock, IL 60098

IF YOU ARE MOVING ...

F

... please
let us know
five weeks
before you
move and
change your
address.
Thank you.

ATTACH MAGAZINE MAILING ENVELOPE LABEL HERE.
OR, PRINT YOUR PRESENT ADDRESS IN THIS SPACE.

PRINT YOUR
NEW
ADDRESS
HERE

Name _____

Street _____

City, State, Zip _____

MAIL TO KALMBACH PUBLISHING CO., 1027 N. SEVENTH ST., MILWAUKEE, WI 53233



VERLINDEN PRODUCTIONS



WARWINDS INTERNATIONAL HOBBY



NEW ITEM PRICE LIST AND ORDER FORM

27. Verlinden Way #4	\$10.95
28. Lock-on F-16	10.95
29. On Target Tiger Tank	9.95
30. German Propaganda Posters	3.50
31. Allied Propaganda Posters	3.50
32. Modern U.S. M.R.E. Cartons	2.95
33. French Commercial Signs	3.50
34. German Commercial Signs	3.50
35. Cut Glass Windows	5.95
36. Barbed Wire	4.50
37. Bannisters, Ornaments	4.50
38. Wrought Iron Gates	4.50
39. F-16 Cockpit Instruments 1/12	4.50
40. F-104 Cockpit Instruments 1/12	4.50
DRY TRANSFERS	
41. U.S. Army Type Stars	5.95
42. U.S. Army Armor Stencils (white)	4.50
43. U.S. Army Armor Stencils (black)	4.50
44. Modern U.S. Army Code Numbers & Stars (black)	4.50
45. Aircraft Stenciling (white)	4.50
46. Aircraft Stenciling (black)	4.50
M.D.A. CASTINGS	
47. Ruined Ortskommandantur	12.95
48. Tobruk Pit	12.95
49. Ruined Rathaus	13.95
50. Ruined German Trade House	13.95
51. German Village Ruin	13.95
METAL FIGURES	
52. U.S. Tank Commander 1980's	9.95
53. Israeli Tank Commander 1970's	9.95
54. U.S. Tank Crew 1980's	10.95
55. Israeli Tank Crew 1970's	10.95
56. Set With 6 Different Heads	4.50



DEALER INQUIRIES INVITED

FOR FULL COLOR CATALOGUE & BUILDING GUIDE SEND \$3.50 (INCLUDES POSTAGE & HANDLING) OR SEND S.A.S.E. FOR NEW ITEM PRICE LIST AND ORDER FORM.

WARWINDS INTERNATIONAL
P.O. BOX 686 ST. LOUIS, MISSOURI 63188

VOTOMS (VERTICAL ONE-MAN TANK FOR OFFENSE & MANEUVER) BY TAKARA

NOW AT A NEW FACTORY DIRECT PRICE.

EACH KIT WILL HAVE A FULL COLOR PAINTING GUIDE WITH ENGLISH TRANSLATION AND FEATURES MANY WORKABLE JOINTS AND PARTS.

KITS IN 1/24 & 1/35 SCALE ALSO FEATURES INTERIOR DETAILS WITH 2 FIGURES INCLUDED.

AVAILABLE IN DIFFERENT SCALE (1/48 1/35 & 1/24) TO MEET DIFFERENT NEEDS.

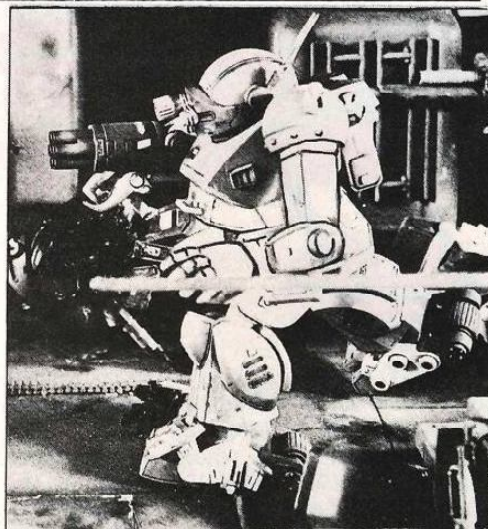
IDEAL FOR ACTION DRORAMA AS SHOWN OR SUPER DETAILING.

VISIT YOUR LOCAL HOBBY DEALER OR WRITE US FOR MORE INFORMATION.

DEALER INQUIRIES INVITED

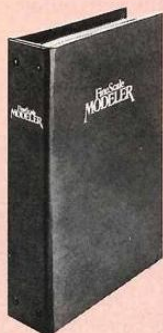
Distributed by:
Marco Polo Import Inc.

2239 Tyler Ave., Unit 'A', So El Monte, CA 91733



1/24 SCALE BRITISH - DOG, SUGGESTED RETAIL PRICE \$8.95

FOR YOUR BACK ISSUES OF FSM . . .



Keep your copies of **FINESCALE MODELER** safe and ready to use in these attractive and durable binders.

\$6.95

Prices subject to change.



FINESCALE MODELER binders are a superb way to keep your collection of FSM neat and handy! Each binder is manufactured to our strict specifications and is doubly reinforced for long life. FINESCALE MODELER binders are finished in an attractive brown vinyl and accented by gold stamping. And FSM binders open flat just like a bound book for easy reference. Order the binders you need today!

EACH BINDER HOLDS 12 ISSUES!

BINDERS

DEPT. 38718

KALMBACH PUBLISHING CO.

1027 N. SEVENTH ST., MILWAUKEE, WI 53233

Enclosed is \$_____ for _____ FINESCALE MODELER binders at \$6.95. Include for postage and handling: U. S., \$1; foreign \$1.50. Wisconsin residents add 5 per cent sales tax.

☐ Check here and enclose \$1.25 to receive your copy of the Kalmbach Hobby Catalog. (Price refunded on next order).

Name _____

Street _____

City, State, Zip _____

Charge to: ☐ **MASTERCARD** ☐ **VISA** Exp. Date _____

Card Number _____

Signature _____

© 1985 Kalmbach Publishing Co.



Modeling the

BY ROSCOE CREED

THE MYSTERY SHIP has been a favorite of mine since childhood. There's something about its graceful lines, huge radial engine, and wheel pants that always said "Go!" to me.

In 1965 Hawk Model Company introduced a 1/48 scale model of the Travel Air Mystery Ship, the last in its series of classic racing planes begun in the late '40s. The series was reissued in 1976 by Testor in attractive new packaging, appropriately labeled "The Golden Age of Aviation."

Out of the box, the model is relatively easy to build, Fig. 1. The only indication of its age is the molded-in trim

lines which come in handy when masking; the paint demarcation hides them in the finished product.

The model's most outstanding feature is the engine. Cylinders and crankcase, gear case, exhaust collector ring, intake manifold, and pushrods are molded separately, making them easy to prepare and paint, and when assembled they make a beautiful scale model of the Whirlwind, Fig. 2. The Microscale decals even include the tiny Travel Air logos on the vertical fin and the fuselage below the cockpit.

The worst feature of the kit is the absence of interior detail. Only a pilot figure

is included. I measured the model with a Murphey's Rule* and discovered that the model is about a scale foot short in both wingspan and fuselage length, which would put it closer to 1/50 scale.

Building a classic. I began construction by sanding all bonding surfaces on a sheet of 400-grit wet-or-dry sandpaper taped to my workbench, then drilled all holes for the rigging, Fig. 3.

Next, I scratchbuilt a cockpit interior. The real airplane's fuselage was

*Murphey Model Products, P. O. Box 8181, Cincinnati, OH 45208.



Fig. 1. Kit contains 27 parts plus windscreen, and an excellent instruction sheet. "Golden Age" package was introduced when Testor re-released the kit in 1976.



Fig. 2. Close-up of Wright Whirlwind engine, the most outstanding feature of the kit.

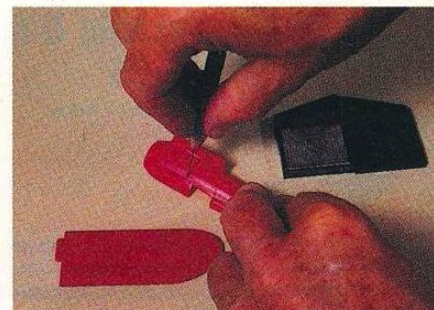


Fig. 3. Holes for rigging were preplanned and drilled before parts were assembled.

The Hawk kit of the Mystery Ship was first marketed in 1965, the last of a series of 1/48 scale racing planes started in the late '40s. It is still an excellent kit even by today's standards.



Travel Air Mystery ship in 1/48 scale

Extra details and a smooth paint job improve the Testor/Hawk classic

plywood over a steel tube frame, which can be seen through the cockpit opening. I drew an inch-long section of the tubing structure on paper, covered it with waxed paper, and built two frames, pinning pieces of stretched sprue in place much the same way a balsa flying model is built, Fig. 4.

I found a floor and seat in the spares box and filed them to fit. The Mystery Ship was not plush inside, but it did have seat and back cushions. I cut these from sheet styrene and filed grooves in them to simulate tufted upholstery. A control stick was made from a bent pin and the rudder pedals were cut from sheet styrene. I built the control panel using Waldron's 1/48

scale instruments. The interior was painted Pactra camouflage gray (M13), and the seat cushions Testor gloss black (1147), Fig. 5.

After the interior was completed, I cemented the fuselage halves together with Micro Weld. They fit so well that no putty was needed. The same was true for the wing halves, but the wing and stabilizer roots needed a little putty.

I added exhaust stacks cut from drilled-out stretched sprue, and filed the inside of the cowl slightly to fit over them. I also cemented the little braces in place between wing and fuselage, but if I were to build another Mystery Ship I would fit these and cement

them in place last, as they made finishing difficult. The windscreen was attached with white glue and masked to prevent scratching.

I painted the engine cylinders Pactra X-35 Hotrod Primer, gearbox Testor 1138 gloss gray, and the exhaust collector ring non-buffing Spray 'n' Plate. After the paint was dry, I assembled the engine. Next, I painted the wheels and tires and assembled the landing gear. I dry-fitted the engine, cowl, and landing gear to the fuselage, but didn't attach them until the airframe was painted.

Before painting, I sanded the surface of the model with 600-grit sandpaper. Nothing gets rid of sanding residue and

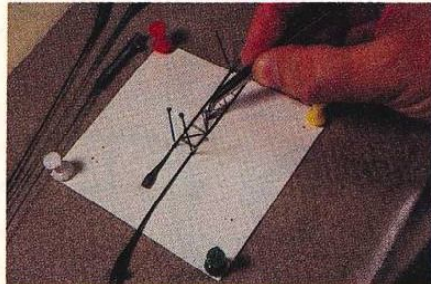


Fig. 4. Frame sections were scratchbuilt from stretched sprue with the same techniques used to build balsa flying models.

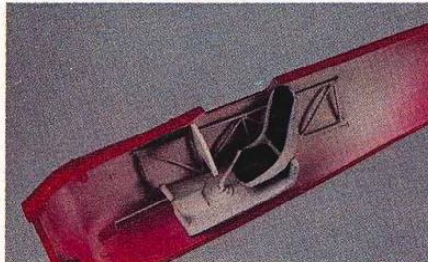


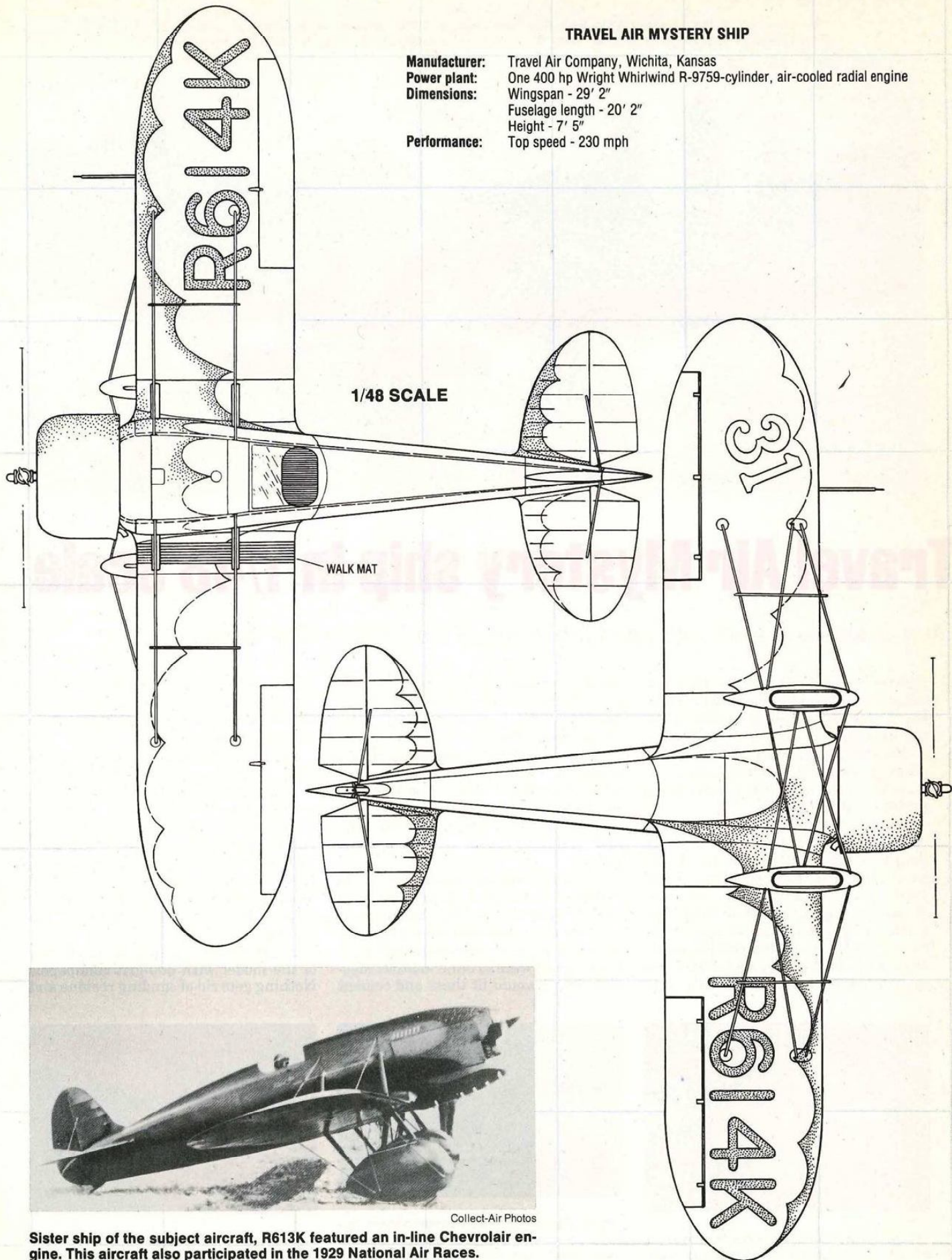
Fig. 5. The completed cockpit shows the frame section in place along with the scratchbuilt seat cushions. The seat and floor are from spares box.



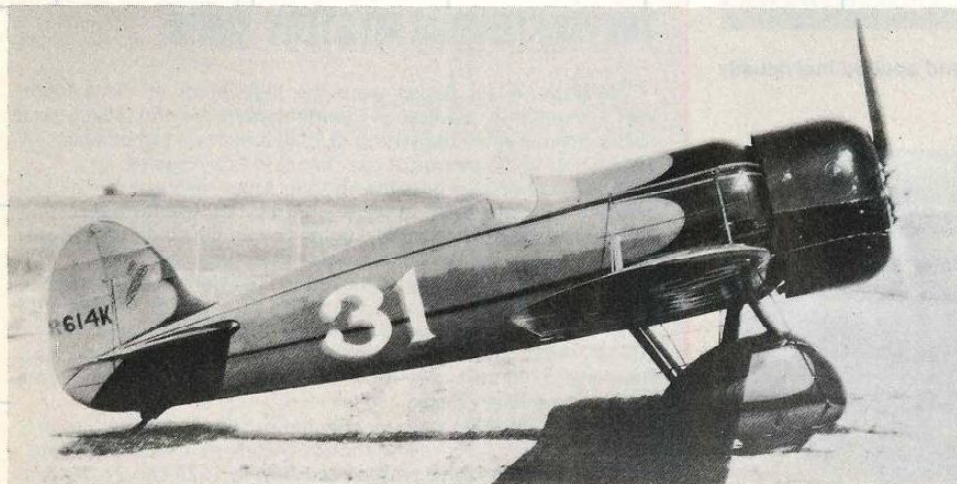
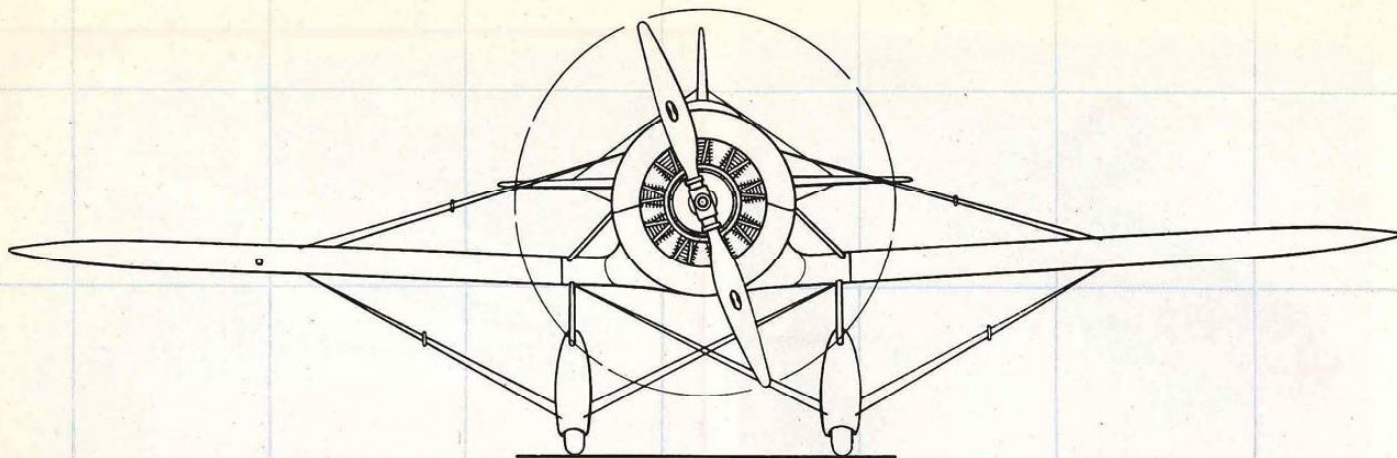
Fig. 6. Thin strips of tape were pared from the outer edges of the circles and bent to fit the molded-in design.

TRAVEL AIR MYSTERY SHIP

Manufacturer: Travel Air Company, Wichita, Kansas
Power plant: One 400 hp Wright Whirlwind R-9759-cylinder, air-cooled radial engine
Dimensions: Wingspan - 29' 2"
 Fuselage length - 20' 2"
 Height - 7' 5"
Performance: Top speed - 230 mph



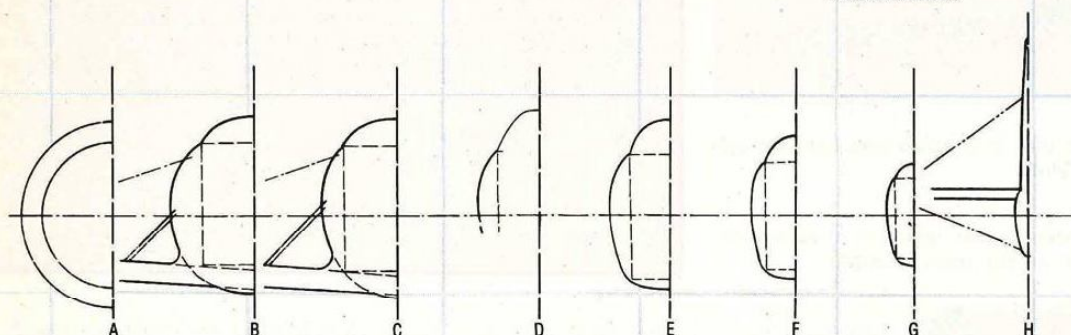
Sister ship of the subject aircraft, R613K featured an in-line Chevrolair engine. This aircraft also participated in the 1929 National Air Races.



PREPARED FOR
FINESCALE MODELER
BY
Björn Karlström

Subject of the model, Travel Air Mystery Ship R614K as it appeared in the 1929 National Air Races in Cleveland. Note that Travel Air aircraft logo on tail seems to be going over the top of a loop.

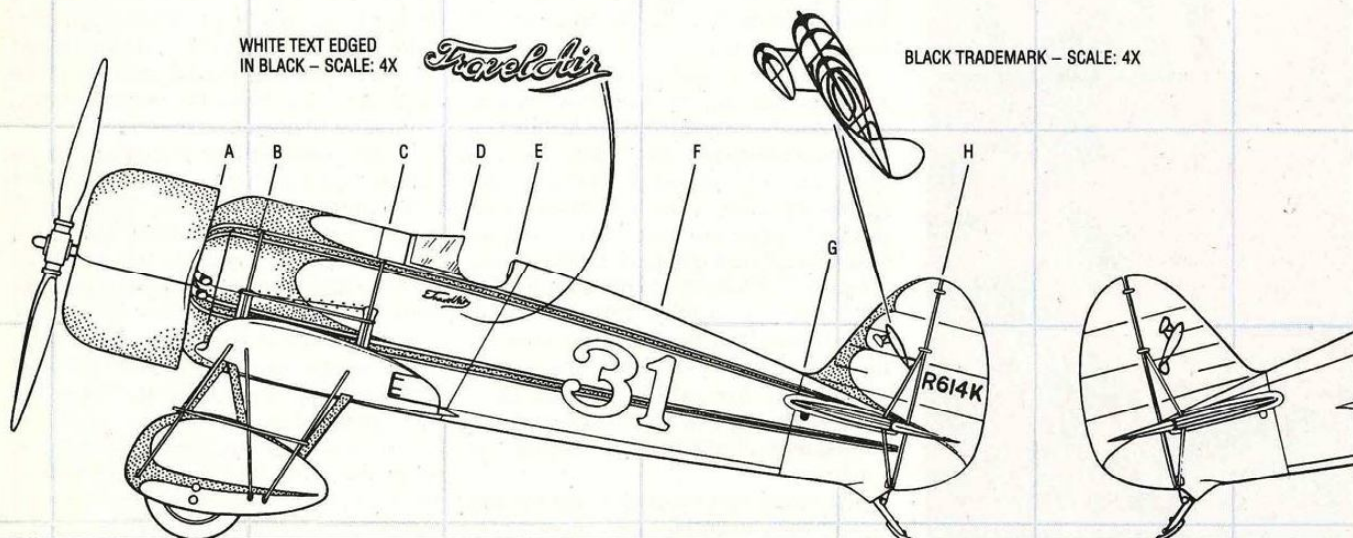
Collect-Air Photos



WHITE TEXT EDGED
IN BLACK - SCALE: 4X

Travel Air

BLACK TRADEMARK - SCALE: 4X



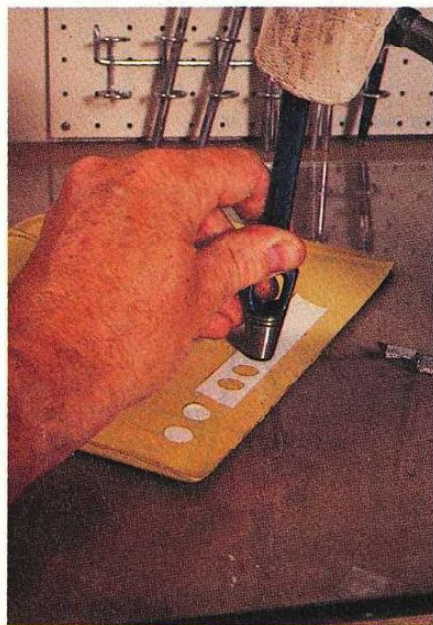


Decals were trimmed to the paint line and applied individually to wings and fuselage.



Fig. 8. The rigging was done with .015" piano wire filed flat and cemented in place with Hot Stuff.

Fig. 7. Masking for batwing design was made by punching circles from tape laid on back of an old rubber dustpan.



dust flecks better than a wash with detergent. After rinsing the model with water, I dried it with the blast of air from an airbrush.

Painting. I placed a tissue-wrapped pencil in the engine mounting hole to serve as a handle during painting. The red recommended by Testor is No. 1103, but my research material describes the color of the Mystery Ship as orange trimmed in black. So I compromised by mixing one part 1103 red and one part 1127 orange to produce the desired color. I thinned this about 1:1 with Testor thinner and airbrushed it on a piece of scrap styrene to make sure it would lay down shiny and smooth. I sprayed the first of four light coats on the model and allowed it to dry to the touch.

After each coat was dry, I wet sanded lightly with worn 600-grit paper to remove dust particles imbedded in the



Collect-Air Photos

Famous pilot Frank Hawkes stands next to NR1313 in the second Texaco scheme of red and cream in the early '30s.

THE MYSTERIOUS MYSTERY SHIPS

The National Air Races were the high point of the aviation year's events in aviation's "golden years"—the 1920s and 1930s. From a small beginning in 1920 they were big business by 1929, thrilling thousands of spectators in Los Angeles.

The races had also become another Army-Navy game. The two services used the event to show off their high-performance pursuit planes, the winner usually being the biplane with the biggest engine. Civilian entries usually came in as also-rans.

In 1929 the nationals were moved to Cleveland for what was to be the biggest event ever—four days of aerobatic demonstrations, dirigible flybys, static display, nightly fireworks, cross-country races, and 35 closed-circuit races, culminating on Labor Day with a 50-mile free-for-all that would pit civilian racers against the military's best.

But that year there was unexpected excitement. Where in previous years competitors and their planes were thoroughly publicized in the press long before race day, in 1929 two Travel Airs had flown in the day before the main event, and were spirited into a hangar and placed under cover. No one was allowed to see them, and Doug Davis, the pilot who would fly them in separate contests, designers Herbert Rawdon and Walter Burnham, and factory owner Walter Beech would not answer questions about them.

The press, frustrated, began referring to the free-for-all entry as the "Mystery Ship," a name that caught on with the public, and eventually was adopted by the Travel Air Company.

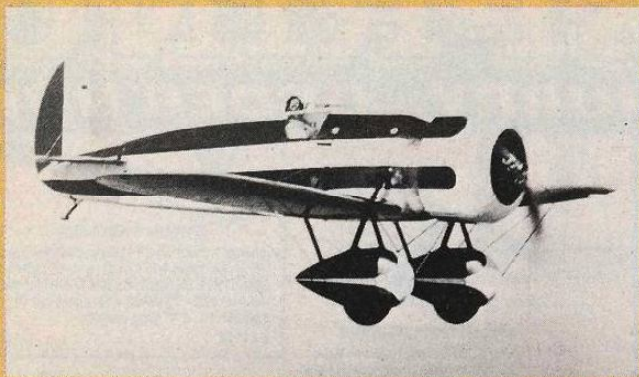
The facts, revealed after the nationals, were that work had begun on the two planes—Travel Air Model Rs—just that spring.

paint, then washed and dried the model. After the fourth coat had dried, I rubbed out the finish with a touch of Ultra Brite toothpaste on a piece of old T-shirt. This eliminated the last of the dust particles, killed the new-toy shine, and left a pleasing scale sheen.

Next, I masked the scallop design on wings and tail with thin strips pared from the edges of circles of tape, Fig. 6. I punched the circles from 3M Paper Tape No. 256, a low-tack tape available in art supply stores, using arch punches bought from the Brookstone Company.* I laid the tape on the back of an old rubber dustpan before punching to protect the edges of the punch and keep the tape sticky, Fig. 7.

The fuselage pattern was masked next, but some design elements were so

*Brookstone Company, 127 Vose Farm Road, Peterborough, NH 03458.



Collect-Air Photos

Another Mystery Ship was made for Italy and painted in a scheme similar to the Texaco aircraft. Note the red, white, and green fin and rudder.

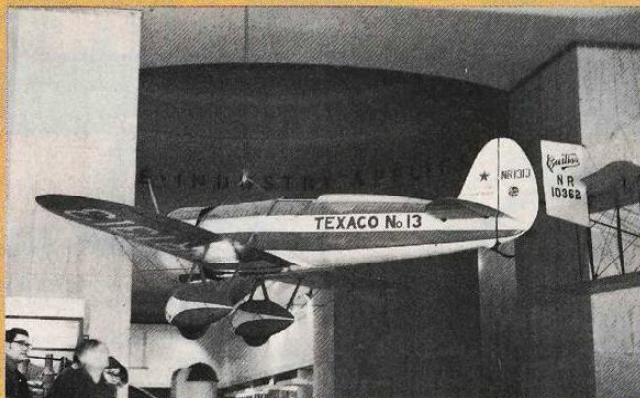
They were low-wing monoplanes, with wingspans of 29' 2", and fuselages 20' 2" long. One, R613K, was fitted with a six-cylinder Chevrolair inverted in-line engine producing 250 horsepower; the other, R614K, with a Wright Whirlwind R-975 nine-cylinder supercharged radial producing 400 horsepower. Testing of the two planes was completed only ten days before they were flown to Cleveland.

When the Mystery Ships were rolled out on race day their biplane counterparts suddenly looked prehistoric. The Travel Airs' sleek, clean lines caused a sensation, an indication of the classics they would become.

The in-line-engined version, R613K, was entered in the experimental aircraft event, and although the engine went sour, the plane still did well enough to take first place with 113.38 mph.

The best was yet to come. Seven planes, including the radial-engined Mystery Ship, were entered in the free-for-all. When the starting flag dropped, Davis sent the tiny monoplane flashing ahead, easily taking the lead. Then on a turn he cut inside a pylon. He circled to correct his error, and in so doing fell a mile behind the new leader. Propeller screaming, the little ship worked its way past its competitors one by one, at the last moment defeating the Army's Curtiss P-3 Hawk — and posting an official speed of 194.9 mph.

The Travel Air Mystery Ship had more to its credit than just good looks and a racing victory. It achieved other firsts — the first radial-engine land plane to exceed 200 mph; the first to use an NACA (National Advisory Committee for Aeronautics) cowl and wheel pants in racing; and the first civilian aircraft



Collect-Air Photos

The Texaco NR1313 now hangs in Chicago's Museum of Science and Industry.

entry to beat both the Army and Navy entries in the free-for-all.

The defeat left military airmen stroking their chins and looking toward low-wing monoplanes as replacements for the venerable biplanes as first-line pursuit ships. The results surfaced two years later with the introduction of the Boeing P-26, a radial-engine, low-wing monoplane with wheel pants.

As for the Mystery Ships themselves, R-613K was re-engined with a radial and sold to Florence "Pancho" Barnes, a well-known California aviatrix. Later it was sold to Paul Mantz, who flew it in several movies. It is now owned by Pancho Barnes' son, who plans to restore it for static display.

Instead of racing in 1930, the free-for-all winner, R614K, toured the nation for Gulf Oil. It was back at the nationals in 1931 however, with Walter Hunter as pilot. During practice the plane caught fire, and Hunter had to bail out and watch the little racer plunge to destruction.

Three other Mystery Ships were built, one for Shell Oil, one for Texaco, and one for the Italian government, which also saw its possibilities as a pursuit plane.

Shell's plane, wrecked in May 1931, was rebuilt by Jimmy Doolittle in time for the nationals. In a practice speed run at nearly 300 mph the wings broke, and Doolittle, like Hunter, bailed out and watched his plane fall to earth.

Texaco's Mystery Ship was flown by Frank Hawks in demonstrations and record-setting cross-country flights during the early 1930s. It survived several minor crashes, and today hangs fully restored in Chicago's Museum of Science and Industry. The fate of the Italian Mystery Ship is unknown.

tiny they couldn't be masked and painted at the same time as the others. These were covered over to be masked and painted in a second stage. I used the same thinning, painting, sanding, washing, and rubbing techniques for the black as for the red, except that a cotton swab was used to rub around the wing-fuselage braces. I left the tape in place on the red while I rubbed out the black to prevent the color from spreading.

The most frustrating problem I encountered with the model was the length of time required for the paint to dry. The model took over six months to finish; when handled the heat from my hands would soften the paint and many retouchings were needed to remove fingerprints.

Decaling. I trimmed and applied each wing and fuselage numeral separately, then washed the excess glue off

after the decals were dry. They laid down beautifully on the shiny surface.

I cemented the landing gear in place with Hot Stuff. Since the struts were spindly, I cut flying wires and rigged the center braces to keep the gear from breaking off, Fig. 8. The other flying wires followed, cut from .015" piano wire ground and filed flat (see "Modeling the Supermarine Walrus," Fall 1982 FINESCALE MODELER).

The tail skid, molded as part of one fuselage half, broke off long ago so I made a new one from a bent pin filed to shape. I installed it with Hot Stuff, then painted it with Pactra flat aluminum (F-11).

Next, I cemented the engine and cowl in place. The polished aluminum propeller was the final touch, coated with buffing Spray 'n' Plate and sealed with Future floor finish. The Hamilton Standard propeller lo-

gos came from my decal spares box.

The finished Mystery Ship model is an attention getter wherever it is displayed, and has won several awards. The most distinguished of these was first place in the racing and civil aviation category, 1/48 scale and larger, at the 1982 IPMS national convention in St. Louis.

FSM

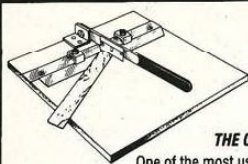
REFERENCES

- *Air Classics*, December 1979, Challenge Publications, Canoga Park, California.
- *Air Progress*, January 1966, Condé Nast Publications, New York.
- *A. A. H. S. Journal*, Fall 1969, Winter 1969, Winter 1982, American Aviation Historical Society, Santa Ana, California.
- O'Neil, Paul, "Barnstormers and Speed Kings," Time-Life *Epic of Flight* series, Alexandria, Virginia, 1981.

Every Item
ON SALE!
Buy DIRECT
from MICRO-MARK
And SAVE!

Micro-Mark™ SPRING

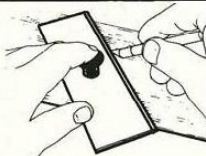
HURRY—ORDER NOW!



THE CHOPPER

One of the most useful tools for the hobbyists working in wood or plastic strip material. Makes clean, neat, feather-free and accurate cuts easily and inexpensively. Uses readily available single edge razor blades. Perfect mitre cuts are a breeze with the 30, 45, and 60 degree guides included. An adjustable stop permits the exact duplication of pieces up to 3 1/4" long. Excellent for model ship planking, model railroad structures, doll house furniture and hundreds of other uses. 7 1/2" x 7 1/2"

#20131 SALE \$12.70



STAINLESS STEEL STRAIGHT EDGE

Cutting a straight line with an X-Acto knife is easy and safe with our knob-held S.S. straight edge. Just the right size for hobby and graphic arts work. 6" L x 2" W x 3/32" thick.

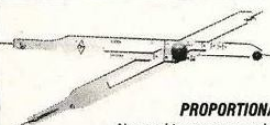
#14162 SALE \$5.50



ALUMINUM MICRO-STORAGE

A fantastic new idea in small parts storage. Aluminum snap-lock case with hinged lid holds 24 containers neatly in place. Each container is one inch diameter x 5/8 inches deep. Case is 6 1/2" x 4 1/4" x 3/4" deep. Also a great gift idea for the fly fisherman!

#14245 SALE \$7.15



PROPORTIONAL DIVIDER

No need to measure, calculate and remeasure when working from scale drawings. Our proportional divider does it for you. Calibrated in ratios from 2:1 to 7:1. A precision instrument made of duraluminum with steel points. Includes vinyl wallet and instructions.

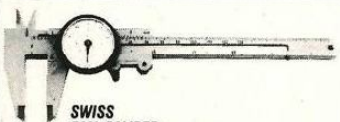
#14129 SALE \$19.50



MICROFLAME TORCH SET

The microflame miniature gas torch is a quality brazing and soldering tool which develops a 5000° (2760° C.) fine-point flame using a mixture of micronox and butane gases in small, disposable cylinders. Offers instantaneous and precise heat only where needed, without risk to adjacent areas. Deluxe kit includes: torch, two micronox cylinders, one butane cylinder, three silver solder brazing rods, two flame tips, flux tube, extra gaskets, flame retardant work surface and complete operating instructions.

#17101 SALE \$19.50



SWISS DIAL CALIPER

A beautifully made tool accurate to 1/100". SWISS-made reinforced plastic. Calibrated in inches (1" to 5") and millimeters.

#10113 SALE \$12.50



BADGER AIR BRUSH SET

BADGER MODEL 200. ALL METAL, SINGLE ACTION, INTERNAL MIX FOR THE SMOOTHEST FINISH.

This model is excellent for detail work, with an adjustable spray pattern from 1/16" to 1 1/2" wide. Kit includes air brush, two 3/4 oz. jars, one 2 oz. jar, protective cap, lightweight vinyl air hose, propellant regulator, propellant, wrench for head and instruction booklet.

#27156 SALE \$34.95

FLEX SHAFT Turns Any Dremel Moto-Tool Into A Flexible Shaft Machine

31" long, super flexible, lightweight. 4 precision collets accept drill bits and Dremel accessories from #80 (.0135") through 1/8".

#14260 SALE \$14.95

MOTO-TOOL HOLDER

Holds your Moto-Tool when using Flex Shaft.

#14261 SALE \$2.95



HOBBY PAINT SHAKER

Our paint shaker mixes all types of paints better, faster and more thoroughly than you can with a stick or hand shaking. Accommodates all small art and hobby size bottles up to 1 oz. Guaranteed for one full year. 110 VOLT AC.

#27162 SALE \$22.50

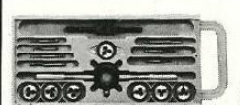


MASKING TAPE CUTTER

If you've ever tried to use masking tape on models or other small projects you know that wide tape just won't follow compound curves without buckling. Our parallel cutter will cut tape down to 1/16" wide, quickly and accurately. You can also cut circles using one blade as a pivot. A precision tool of aluminum and brass with steel cutting blades.

#14295 SALE \$10.50

#14296 EXTRA BLADES (2) \$1.95



MICRO SIZE TAP & DIE SET

16-Piece Tap & Die Set includes tungsten carbide taps and high carbon steel dies in the following sizes: 00-90, 0-80, 1-72, 2-56, 3-48, 4-40, and 6-32 — plus die stock, tap handle and convenient plastic storage box. A \$77.20 value if each component were purchased separately.

#14153 SALE \$52.95



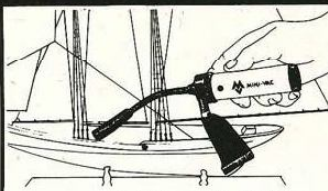
STAINLESS STEEL WIRE LOOP PLIERS

Beautifully made, highly polished pliers make perfect loops, rings and tight radius bends in wire and strip material. An excellent tool for ship model work. One jaw has stepped tip for three different radius bends. The other jaw has a matching curved recess making these pliers work like a male/female bending die.

#14483 . Approx. 3/64", 3/32", and 1/8" radius bends.

#14484 . Approx. 1/32", 3/64", and 1/16" radius bends.

#14484 SALE \$6.50 EA.



MINI-VAC MICRO CLEANER

You won't believe how well this miniature vacuum cleaner picks up dust and dirt particles! Excellent for cleaning ship models, railroad models, sewing machines, computer printers, audio, video and photographic equipment. High velocity motor runs on standard 9 volt battery (not included). Includes curved wand, brush and dust bag as shown plus 1" wide brush, straight wand and crevice tool.

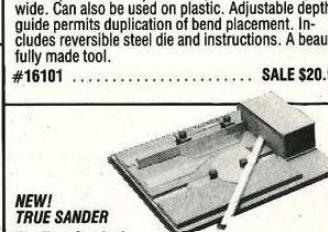
#14113 SALE \$22.50



MINIATURE BENDING BRAKE

A press bending brake for brass and other light sheet metals. Makes bends up to 90 degrees (depending on how far you tighten the press screws). Will bend up to .020" half hard brass, 3" wide. Can also be used on plastic. Adjustable depth guide permits duplication of bend placement. Includes reversible steel die and instructions. A beautifully made tool.

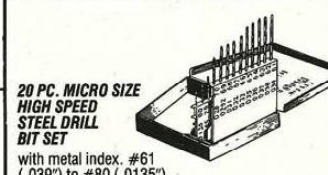
#16101 SALE \$20.95



NEW! TRUE SANDER

The True Sander is designed to give you a quick precision finish on wood, plastic and metal sheet and strip stock. Also works beautifully to square up cut ends of brass tubing. Use whenever you need a fine, precise fit of parts, such as miniature window framing, dollhouse furniture and model structure components, like rafters, trestle timbers, ship planking, etc. Works on material up to 4" wide x 1" thick x any length. Four-sided sanding block lets you have four different grits mounted at the same time. Includes pre-set angle guides for 30°, 45°, 60°, and 90° plus protractor-type guide for any angle in between.

#14475 SALE \$17.20



20 PC. MICRO SIZE HIGH SPEED STEEL DRILL BIT SET

with metal index. #61 (.039") to #80 (.0135")

#26104 SALE \$11.50



AUTOMATIC CENTER PUNCH Saves Time, Increases Accuracy

Spring loaded tool automatically creates a dimple in wood & metal for starting drill bits and wood screws. Variable pressure self-contained hammer mechanism. Hardened point. 1/2" dia. x 5" long.

#10101 SALE \$5.50



ADAPTER CHUCK for Miniature Drills

Most power drill chucks just won't close far enough to handle small size drills. Lock this adapter in your oversize chuck and you've quickly converted it for precise drilling. 0" to 3/32" capacity. 3/32" shaft.

#26107 SALE \$2.50



JEWELER'S HAND VISE

Jeweler's hand vise for holding micro-size parts. Wing nut opens and closes serrated, grooved spring action jaws. Handle is hollow so that long wire will pass through. Polished steel, jaws are 3/8" wide and open to 1/4". 4 1/2" long overall.

#21102 SALE \$7.70



X-ACTO DELUXE SET

An extra large assortment of handles and blades for all types of model, craft and household work. Includes the following: #1 knife with #11 blade, #2 knife with #2 blade, #6 knife with #24 blade, woodcarving knife with #104 blade, 11 general purpose blades, saw blade, 5 woodcarving blades, fitted wooden chest.

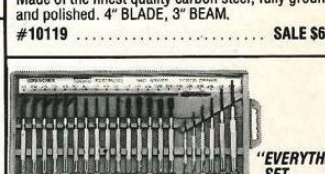
#14265 SALE \$15.50



MACHINIST'S SQUARE

You've never seen anything better for marking a perfect 90 degree angle. Use for marking metal, wood, plastic, etc. Hard-to-find small sizes are a necessity for dollhouse miniaturists and modellers. Also good for setting up small table saws and disc/belt sanders. Made of the finest quality carbon steel, fully ground and polished. 4" BLADE, 3" BEAM.

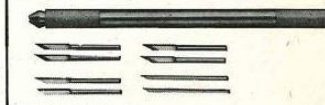
#10119 SALE \$6.50



"EVERYTHING SET"

An exceptionally well made set at an economical price. For all those miniature screws and nuts found in models, calculators, instruments, clocks etc. All tools have hardened steel blades and nickel plated swivel head handles. Guaranteed for one full year! Includes 1/8", 3/32", 1/16", 1/32" and 1/4" open end wrenches; 1/8", 3/64", 3/32", 1/16" and 3/64" nut drivers; 1/32", 3/64", 3/32", 1/8" and 3/64" flat blade screwdrivers; #0 and #1 cross point screwdrivers; all in a convenient plastic storage tray.

#14158 SALE \$7.50



MICRO CHISEL SET

An incredibly small wood chisel set for carving, miniatures, models and electronic circuit board work. Includes aluminum pin vise holder, two right hand and two left hand, single bevel skew chisels; two double bevel skew chisels; one square cut chisel (1/16" cutting width); one diamond point chisel; and a hinged plastic storage case.

#14294 SALE \$5.50



SOLID BRASS BAR CLAMPS

The best thing we've seen in a long time for clamping small wooden boxes, miniature furniture, model railroad structures, ship models, clock kits, etc. Beautifully made of solid brass at a price we can't believe ourselves.

#14256 10 1/2" CAPACITY SET OF TWO SALE \$6.95

#14257 3 3/4" CAPACITY SET OF TWO SALE \$4.95

steel Bonnets

historic et fantasy miniatures

Compare our figures and see if you agree that they are absolutely the finest miniatures & at reasonable prices!

For A Listing Send \$.50 To:

Steel Bonnets

P. O. Box 2792

Plainfield, N.J. 07062 - 0792

A COMPANY OF

THE  **OLD GUARD, INC.**

**Rebel
Standard
Bearer
90mm
Only
\$16.95!**



90/2

In Business 19 Years
Serving the San Francisco
Bay Area

★ ★ **AMERICAS LARGEST HOBBY SHOP** ★ ★

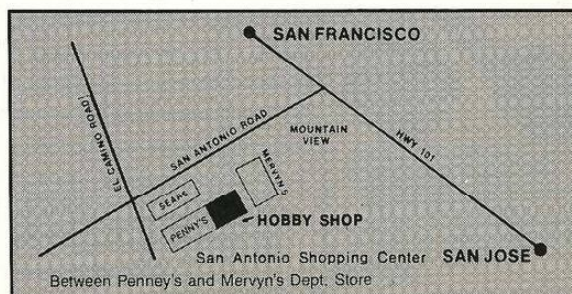
**SAN ANTONIO
HOBBY SHOP, INC.**

■ HUGE BOOK AND MAGAZINE SELECTION ■ AIR
BRUSHES, TOOLS, DECALS ■ VACUFORMS, DIE CAST
CARS ■ TRAINS — LGB, LIONEL, HO, N, Z GAUGE ■ R/C
AIRCRAFT, BOATS, CARS, HELICOPTERS ■ DOMESTIC AND
FOREIGN AIRCRAFT, SHIPS, ARMOR KITS, CARS

✓ **LARGE, WELL-STOCKED**
✓ **WORTH THE TRIP!**

HOURS — Mon. thru Sat. 9:30-5:30
Thurs. night till 9:00

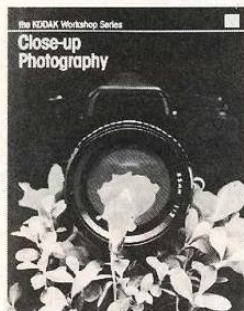
2550 West El Camino, Mtn. View CA. 94040
(415) 941-1278



FSM BOOK BRIEFS

FINESCALE MODELER invites publishers to submit review copies of books and magazines related to modelbuilding. Send all material to FSM Book Briefs, FINESCALE MODELER, 1027 North Seventh Street, Milwaukee, WI 53233.

BY BURR ANGLE



Close-up Photography

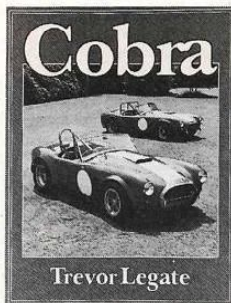
A recent addition to Eastman Kodak's "Workshop Series" of how-to books for intermediate and advanced photographers, this 8½" x 11", 96-page, soft-cover book by William White, Jr., Dennis Brokaw, and Malcolm Furlow contains 123 color and 8 black-and-white photos. Many of the photos show flowers, insects, reptiles, and fish, as well as man-made objects such as computer chips.

Furlow's chapter, "Photographing miniatures," contains much valuable information

on using 35 mm SLRs and 4 x 5 view cameras to photograph scale models. Furlow's pictures show HO trains on model railroad layouts in spectacular western U.S. settings. His imaginative techniques apply equally well to dioramas in any scale.

The authors discuss lighting, lenses, filters, and other technical matters, but repeatedly emphasize that "to get the best results from close-up techniques, you must put as much time, effort, and planning into the placing of the subject as into the functions of the camera and lens system, film, and the lighting arrangements."

The book is published by Eastman Kodak, Rochester, NY 14650; the price is \$8.95.



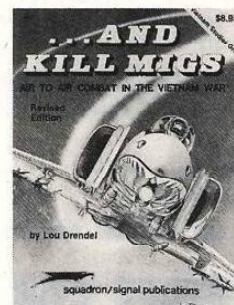
Cobra

Texas race car driver and sports car dealer Carroll Shelby dreamed of mating a sturdy English sports car with a large American V-8 engine to produce a world-beating vehicle. The Cobras of the early and mid-1960s were the result; these were built by AC Cars Limited and powered by one of

several Ford engines displacing up to 428 cubic inches.

This 256-page, 7½" x 10¼", hard-cover book by British journalist Trevor Legate contains 250 black-and-white and 55 color photos; the text provides a complete history of the series.

It is published in the U.S. by Motorbooks International, P. O. Box 2, 729 Prospect Avenue, Osceola, WI 54020; the price is \$29.95.



... And Kill MiGs:

Air to Air Combat in the Vietnam War

This 80-page, 8½" x 11", soft-cover book by Lou Drendel is a revision of the author's earlier book with the same title. The current edition contains 158 photos (11 in color) and 24 color paintings of aircraft. There are lists of USAF and USN victories over North Vietnamese fighters and a brief introduction by the author, but most of the text consists of narratives by some 30 Air Force and Navy aviators describing how each destroyed one or more enemy planes between 1965 and 1973.

VOLUME 9 NUMBER 1 OCTOBER 1982

SCALE Aircraft Modelling

95p

INSIDE
FREE DECAL SHEET
NORTH AMERICAN HARVARD AND A-10 TEXAN MARKINGS

ANNUAL SUBSCRIPTION \$38.00
Including postage

BACK ISSUE SERVICE AVAILABLE
Send for full list

DEALER ENQUIRIES WELCOMED

Which is the only modeling magazine in the world to give its readers a free decal sheet?

Yes, Scale Aircraft Modelling provides its readers with a superb aircraft decal sheet every other issue linked with one of the lead articles. Apart from that it has the best camouflage and markings drawings, detailed histories and plenty of how-to-do-it information and up-to-date reviews of the latest kits, decals and accessories. It's a must for all aircraft modelers. Check your local store or take out an annual subscription, now!

SCALE AIRCRAFT MODELLING
226 HIGH STREET,
BERKHAMSTED, HERTS,
HP4 1AD, ENGLAND
or from Bill Dean Books Ltd., 166-41
Powells Cove Boulevard, Whitestone,
New York 11357

DIORAMA MATERIALS

DUSTING KITS—Weathering/aging structures & models with 5 shades of dust. **KIT A**—white, gray, brown, black, red. **KIT B**—dark gray, cream, off white, medium brown, flesh. \$9.35

ROCK — SOIL — GRANITE — 117 different colors & grades. Sample kit \$9.35. Send SSAE.

THE ROCK QUARRY

412 Oak Glen, Plano, TX 75074

RIVERSIDE HOBBIES

PLASTIC MODEL KITS

FROM AROUND THE WORLD

AIRCRAFT MONSTERS SHIPS
ARMOR MOTORCYCLES SPACESHIPS
CARS ROBOTS TRUCKS

THREE MAIL ORDER CATALOGS AVAILABLE

\$1.00 FOR CAR & TRUCK CATALOG

\$1.50 FOR ILLUSTRATED SCI-FI CATALOG

\$2.00 FOR COMPLETE CATALOG

INQUIRIES INCLUDE SASE FOR REPLY

SEND TO OUR NEW ADDRESS

5770 FREEPORT BLVD., SUITE 16

SACRAMENTO, CA 95822 (916) 392-9739

It is published by Squadron/Signal Publications, Inc., 1115 Crowley Drive, Carrollton, TX 75011-5010; the price is \$8.95.

F-4 Phantom II in Action

Squadron/Signal Publications has also released a new book on the Phantom, supplementing its earlier, out-of-print volume

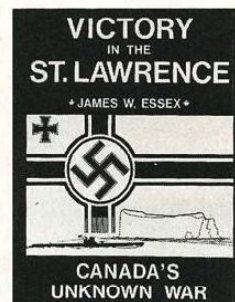


with the same title. This 8 1/4" x 11", 58-page, horizontal-format, soft-cover book by Larry Davis with illustrations by Don Greer contains 103 black-and-white photos, 86 line drawings, and 10 color renderings. All Phantom II variants are covered in the text. The price is \$4.95.



P-47 Thunderbolt in Action

Another recent work by Larry Davis from Squadron/Signal, this 8 1/4" x 11", 50-page, horizontal-format, soft-cover book contains 93 black-and-white photos, 57 drawings by Kevin Wornkey, and 14 color renderings by Don Greer. All versions of the Republic P-47 are shown and described. The price is \$4.95.



Victory in the St. Lawrence: Canada's Unknown War

Between May and October 1942, at least 22 Allied vessels were sunk by German submarines in or near the mouth of the St. Lawrence; several other ships were sunk as late as April 16, 1945. James W. Essex was an R. D. F. (Range and Direction Finder, or radar) operator in the Canadian Navy during those years and was stationed at Gaspé, New Brunswick, in 1942.

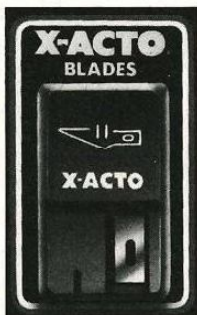
IF YOU THINK YOU CAN CUT CORNERS WITH AN OLD BLADE, PUT IT TO THE TEST.

Because your work demands tools of exacting and delicate precision, we make X-ACTO® knife blades both sharp and precise. But because our blades can't keep their accuracy forever, we also make them easily replaceable.

THE X-ACTO TEST

A sharp X-ACTO blade will maneuver smoothly along the curves and corners of this dotted line, making the kind of clean cut you expect in your work. If, however, your blade drags, shreds, slips or catches somewhere along the line, then it's no longer giving you the precision your work demands. In which case, it's time to replace your X-Acto blade with a fresh one.

When used properly, your X-Acto knife will become indispensable. But when used frequently, remember that the blade is disposable.



X-ACTO®
CRAFT KNIFE BLADES

Put new life
in your X-ACTO knife.

©1984 Hunt/X-ACTO Inc. Div. Hunt Mfg. Co.
1405 Locust St., Philadelphia, PA 19102

FOUND!! SCIENCE FICTION WORLD



PONY TOY GO-ROUND • 420 E. 2nd St., L.A., CA 90012 • (213) 617-0058 • Free Parking

Fine Detailing Demands the Finest... **BADGER**

The Badger Model 150 Air-Brush is extremely versatile and recommended for use by professional modelers. Each Badger Air-Brush part is machined with exacting precision, inspected by highly skilled craftsmen and assembled carefully by hand.

The 150 Air-Brush is suitable for left or right handed modelers because of the bottom feed feature. With a choice of three interchangeable head assemblies you can spray from a fine pencil line to 2" wide. Ask for fine Badger products at your local hobby, craft or art store or write Dept. FS 84 for a full color catalog BA 300 Vol. 7. Please enclose \$1.00 to cover cost of postage and handling.

150



BADGER AIR-BRUSH CO.
9128 W. BELMONT AVE. • FRANKLIN PARK, IL 60131
Dist. in Canada by: HOBBY INDUSTRIES • 24 Ronson Drive • Rexdale, Ontario M9W 1B4

This 176-page, 8½" x 11", hard-cover book is his account of the growth of Canadian antisubmarine forces from 1939 through 1945, concentrating on the buildup at Gaspé and Halifax. There are 154 black-and-white photos, several maps, and a bibliography.

It is published by The Boston Mills Press, 98 Main Street, Erin, ON, Canada NOB 1T0; the price is \$24.95.



Dassault Etendard IV & Super Etendard

Alain Crosnier and Jean-Michel Guhl are the authors of this handsome 8¼" x 11¼", 52-page, soft-cover book on the Dassault Etendard IV and Super Etendard which serve on French aircraft carriers and with the armed forces of Argentina and Iraq. There are 106 photos (16 in color) and 1/72 scale drawings of both aircraft. The text (in French) discusses the development of the planes and their deployment with French, Argentinean, and Iraqi units.

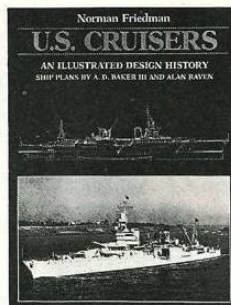
The book is published by Sup Air Publications, 92, rue du Faubourg Poissonnière, 75010 Paris, France. The overseas price for

a single copy is Fr58.00 (roughly \$6.20). Contact the publisher for information on shipping charges and prices for multiple copies.

U. S. Cruisers:

An Illustrated Design History

The latest volume in Norman Friedman's series of design histories of U. S. Navy



ships, this 480-page, 8½" x 11", hard-cover book contains 200 black-and-white photos (all U. S. Navy) and 224 line drawings. The text, based largely on the author's research in U. S. Navy archives, provides a thorough discussion of the technical, political, and economic influences on the designs of U. S. cruisers from the 1880s to the present. Each class of cruiser is described in detail, including several designs that were never constructed. There are appendices and an index.

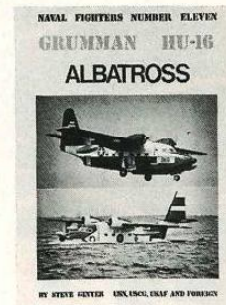
The book is published by Naval Institute Press, Annapolis, MD 21402; the price is \$46.95.

Naval Institute Press also publishes Fried-

man's design histories of U. S. destroyers and aircraft carriers; his study of U. S. battleships is scheduled for publication during 1985.

Grumman HU-16 Albatross

A prototype Grumman Albatross twin-engine amphibian first flew on October 1, 1947, and several of the planes are still in



service, including at least one operated by the Smithsonian Institution.

Steve Ginter's 73-page, 8½" x 11", soft-cover study of the Albatross includes extracts from Grumman manuals, reminiscences of flights in the Albatross by several pilots, and 215 photos (25 in color) showing the plane in many color schemes, mostly those of the U. S. Navy, Air Force, and Coast Guard, but also the air forces and navies of such countries as Greece, Spain, Norway, and Mexico.

The book is published by Naval Fighters, 1754 Warfield Circle, Simi Valley, CA 93063; the price is \$14.95.

S.F.3.D

IN WORLD WAR III the nukes flew.
SOME fled.
MOST burned.
EARTH lost.

The Planetary Colonies kept their heritages alive, for the day which the drabness of colonial life made everyone look forward to

JUNE 2, 2807: Some colonies return to a regenerating EARTH. But, chaos and anarchy are the result. The nukes are gone, but humans are back.

DECEMBER 18, 2807: Australian mercenaries storm a German supply depot.

WORLD WAR IV BEGINS

The S.F.3.D Plastic model kits are the finest quality Japan has to offer. Rubber tubes and hoses, wire antennae, brass mesh duct-covers, exploded-view instructions, superior detailing. Consistent 1/20th Scale, this series of Future Military is a must for the serious modeler, the diorama-builder, the kitbasher. We import them EXCLUSIVELY. Fine Hobby Distributors and Shops carry them.

Send \$2.00
for a complete catalogue.

4732 E. Pearl
Boulder, Co. 80301





WAR AND PIECES

7 SOUTH MAIN ST.
WEST HARTFORD, CT 06107

"FINE SCALE MODELS FOR FINE SCALE MODELER"

• CALL FOR HARD TO FIND ITEMS. No Catalog

203-232-0608

MasterCard • VISA • American Express

• REVELL • TAKSUDA • MONOGRAM • FUJIMI • AIRFIX • WILLIAMS BROS. •

• HELLER • BLUEJACKET •

• LS • ITALERI • ESCI • KP •

THE QUARTERMASTER



P.O. DRAWER Y ★ Dept. F
ST. JOSEPH, ILLINOIS 61873

KITS, FIGURES, GAMES, AND SUPPLIES

OVER 50 MANUFACTURERS

Aero Pubs
Avalon Hill
Barton
Deauville
G.H.Q.
G.D.W.
Historex

Humbrol
Italaerei
Minicraft
Micro Scale
New Hope Design

Osprey
Phoenix
Ral Partha
Superior
Tamiya
T.S.R.
X-Acto

ALL BELOW RETAIL PRICE

----- MAIL-ORDER CATALOG \$3.00 -----

THE INTERNATIONAL PLASTIC MODELERS SOCIETY

DO YOU WANT TO LEARN MORE ABOUT MODELING?

IPMS/USA OFFERS YOU...



Membership in a non-profit organization founded "BY MODELERS FOR MODELERS".

Membership includes 4 Quarterlies and 6 Updates per membership year. They contain articles on camouflage and marking, super-detailing, model conversions, scratch building, historical information, and much more.

Yes! Enroll me now in IPMS/USA.

I enclose \$ _____ for 1-year membership in IPMS/USA. I

understand this membership includes subscription to four IPMS/USA

Quarterlies and six Updates.

Name _____

Address _____

City _____ State _____ Zip _____

Country _____

Type of Membership:

☐ Adult \$18.00 ☐ Foreign \$21.00 ☐ Junior \$10.00 Birthdate _____ (17 years and under)

For Samples, send \$2.75.

Make check or money order payable to IPMS/USA

!Please don't send cash!!

83044



Mail to:
IPMS/USA
New Membership
P. O. Box 480, FSM
Denver, Colorado
80201

BADGER 200—3 Internal Mix, Single Action Airbrush. 3 Jars, 6-Ft. Hose, Propel and Regulator.

\$34.95

BADGER 150—4-Pk. Internal Mix, Double-Action Airbrush. 3 Jars, 1 Color Cup, 8-Ft. Braided Hose, All in a Wood Case.

\$71.95

MONOGRAM— $\frac{1}{32}$ Blue Thunder Helicopter.

\$5.39

MONOGRAM— $\frac{1}{72}$ SR-71 Blackbird.

\$5.99

TESTORS— $\frac{1}{72}$ AC 130

\$13.49

HASAGAWA— $\frac{1}{72}$ SR-71 W/D-21 Drone

\$18.75

HASAGAWA—B-17F Flying Fortress

\$13.49

SQUADRON—MIG Alley

\$6.75

SQUADRON—Boeing B-29 Superfortress.

\$6.75

SQUADRON—Air-Mobile; The Helicopter in Vietnam.

\$7.60

KALMBACH—How to Photograph Scale Models.

\$6.95

KALMBACH—Building Model Airliners

\$5.90

For A Complete Discount Catalog, Send \$2.00.

**\$1.00 Refundable
With First Order!**

Add \$2.25 with each order for shipping.

MAKE CHECKS PAYABLE TO:

**HOBBY HOUSE, Dept. FSM
8208 MERRIMAN ROAD
WESTLAND, MI 48185**

— VISA and MasterCard Accepted —

S. S. EDMUND FITZGERALD

Detailed Scale Model
for information write

HERITAGE SHIPBUILDERS

Box 494 • Lathrup Village, Mich. 48076

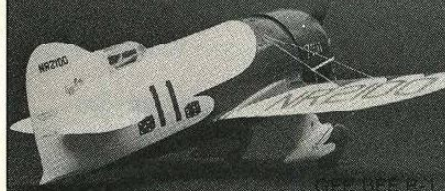
MILITARY HISTORY



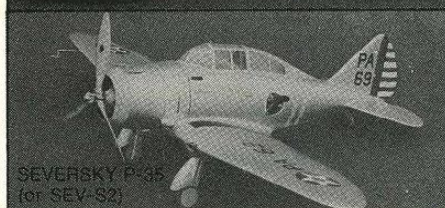
ON VIDEOCASSETTES

See military history as it happened! World War I through the Falklands campaign. The other side of World War II: original German combat newsreels and features of the great battles. Rare Allied Army and Air Force documentaries. Also Korea, Vietnam, and contemporary Soviet Army. Over 300 titles reproduced from original source materials. Beta/VHS, also PAL Standard. Reasonable prices, fast service. Write or phone for free illustrated catalog. **INTERNATIONAL HISTORIC FILMS, Box 29035, Chicago, Illinois 60629, Phone 312-436-8051.**

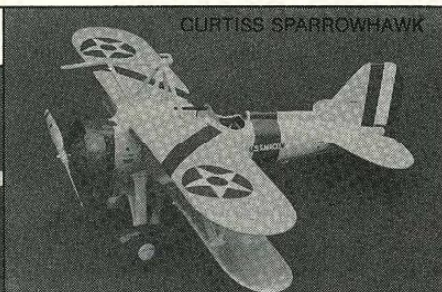
CLASSICS!



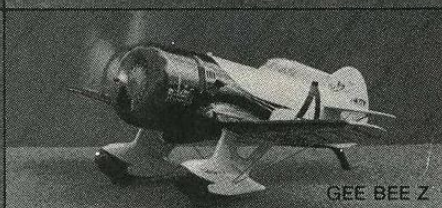
GEE BEE P-1



SEVERSKY P-35
(for SEV-S2)



CURTISS SPARROWHAWK



GEE BEE Z

1/32 scale plastic model kits of Golden Age classic aircraft! Colorful, highly detailed miniatures. Send \$1 for fully illustrated catalog of these and other kits and accessories.



DEPT. FSM
181 PAWNEE ST.
SAN MARCOS,
CALIFORNIA 92069



WEDELL-WILLIAMS

COMBAT MODELS

NEW KITS !!!!!

COMBAT MODELS VACUFORM KITS

NEW KITS 1/48th SCALE

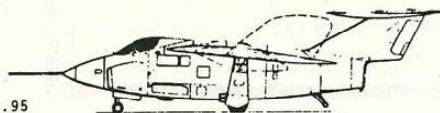
48-094	XF5U Flapjack	\$15.95
48-062	Hind-D	\$15.95
48-300	Grumman XF10F-1 Jaguar	\$15.95 NEW
48-301	McDonnell XP-67 Moonbat	\$15.95 NEW

REISSUED KITS 1/72nd SCALE

72-84	PZL P-24	\$5.95
72-214	North American F-107	\$6.95
72-211	Douglas C-124	\$21.95
72-06	Northrop XB-49 Flying Wing	\$19.95
72-151	XFY "Pogo"	\$6.95
72-163	Dornier Do-26	\$14.95
72-318	Flettner FL	\$5.95
72-4037	IAR-80/B1-1 (Comb)	\$6.95
32-055	JU-88	\$27.95

NEW SUBMARINES

72-105	Mk-1Xc U-505	40"	\$25.95	NEW
72-106	Mk-1Xd & D2	44"	\$27.95	NEW
72-100	USS Ward	52½"	\$28.95	



XF10F-1 JAGUAR

\$15.95

SCRATCH & VAC MAGAZINE

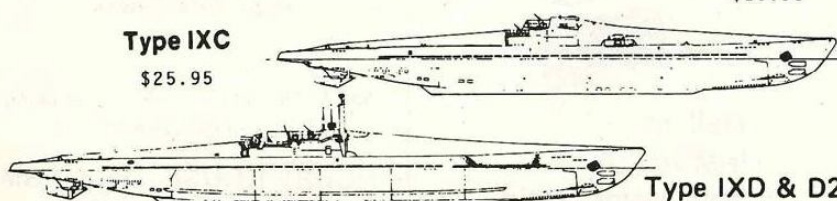
Vol. 5 No. 1 "Sub Special" Part 1
\$3.50 includes a list of all Combat
Models kits. Price list alone 50¢



McDonnell XP-67 Moonbat
\$15.95

Type IXC

\$25.95



Type IXD & D2

\$27.95

SHIPPING INSTRUCTIONS

U. S. Orders to continental states shipped UPS.

RATES: Orders to \$20.00 add \$2.00, \$20.00 to \$50.00 add \$3.50, \$50.00 up add \$4.00.
For a complete listing of over 100 vacuform aircraft, ships, softskin, metal accessories, figures, and complete line of our custom decals send 50 cents to:

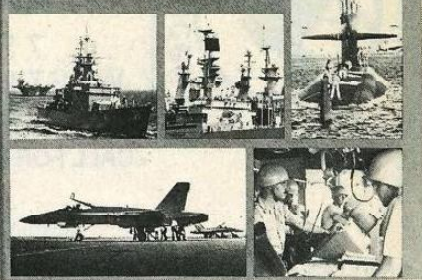
COMBAT MODELS 400 3rd STREET, WEST EASTON, PA. 18042

DEALERS INQUIRIES WELCOME

THIRTEENTH EDITION

The Ships and Aircraft of the U.S. Fleet

BY NORMAN POLMAR

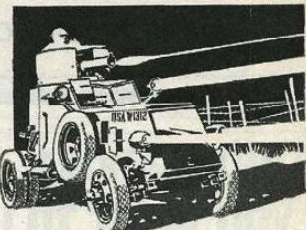


The Ships and Aircraft of the U. S. Fleet

This 456-page, 9½" x 9½", hard-cover book by Norman Polmar contains more than 800 black-and-white photos and is a guide to all U. S. Navy and Marines, Coast Guard, and National Oceanic and Atmospheric Administration ships and aircraft currently in service. Also included are descriptions of weapons and electronics systems, as well as tables of organization, unit codes, a glossary of abbreviations, and a bibliography. There is an index of ship names and classes.

It is the thirteenth edition (the third by Polmar) of this standard reference work, which is revised every three years. The book is published by Naval Institute Press; the price is \$29.95.

U.S. MILITARY WHEELED VEHICLES



FRED W. CRISMON

U. S. Military Wheeled Vehicles

Fred Crismon began collecting photos and other data about U. S. military wheeled vehicles in the 1950s and has now prepared this 472-page, 8½" x 11¼", hard-cover book that contains more than 2,100 black-and-white photos of almost all self-propelled wheeled vehicles adopted or evaluated by the Army, Navy, Marines, Coast Guard, and Air Force from before 1900 through about 1982. The 18 chapters cover motorcycles, cargo trucks, fire engines, buses, and many other types; there are nearly 200 pictures of jeeps.

Most of the photos are side or front three-quarter views; all are clearly printed. A paragraph-length caption accompanies each photo.

The book is published by Crestline Publishing, 1251 North Jefferson Avenue, Sarasota, FL 33577; the price is \$34.95. **FSM**

APC HOBBIES

BOX 122
EARLYSVILLE, VA. 22936

BELL
XV-15
TILTROTOR



1/84 SCALE
5.00 ea

NEW

mail order
catalog \$1.00

MC/VISA
PHONE 804-9732705

Please mention FINESCALE MODELER
when writing to advertisers

GREAT PLANES MODELS

"On the Great Plains of Wyoming"

401 East Boxelder Lane #307
Gillette, Wyoming 82716

Send a large SSAE for our kit list.

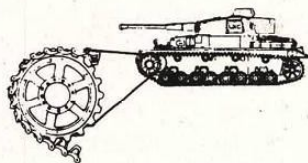
We buy unbuilt kit collections

MAIL ORDER ONLY, PLEASE.

FIGURE CASTING METALS!

Lead • Tin • Antimony • Bismuth • Many
Alloys, Including Lead, Tin, Pewter and
Fusible. Also fluxes and ladles. We are a
refinery with low prices. Free expert
advice. Send \$2.00 for our catalog today.

Art Green, 485 S. Robertson Blvd.
Beverly Hills, CA 90211. (213) 274-1283



ARMOR IN DETAIL

*IF YOU'RE INTO ARMOR...
..... WE'RE INTO DETAIL*

- Tamiya
- ESCI
- Italeri
- DCS-MDA
- Historex
- Deauville
- Nichimo
- Nitto
- Armor In Detail
- The Rock Quarry
- Micro System
- & Much, Much More

1238 Poppyseed Drive
New Brighton, MN. 55112

New
Expanded
Catalog \$2.50



Curtiss P-40N



Republic P-47N

Illustrations - *Hugh Polder*

Overall 16" x 20"

Full Color Prints

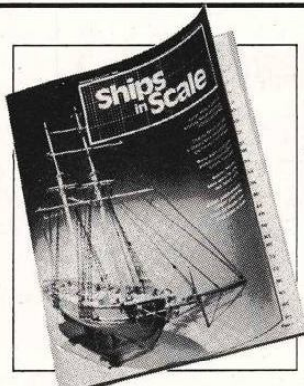
— \$37.00 Each —

IL Residents Add 6% Sales Tax

Send Check Or Money Order To:

HUGH'S AVIATION PRINTS

3540 W. Beach Ave., Chicago, IL 60651
(312) 772-7683



CLIMB ABOARD THE GREAT NEW SHIP MODELING MAGAZINE...

Ships in Scale

If you've ever built a model ship before—or even *thought* about building one—this magazine is for you! *Ships in Scale* is the magazine for hobbyists, would-be hobbyists, or just those who love to putter about, dream about, or read about ships. *Ships in Scale* covers every aspect of ship modeling—power and sail, plastic and wood, scratch building and kit, even radio control. You'll find detailed articles, pages of plans, fantastic photographs, historic—and nostalgic—journeys into the past, plus news and notes of nautical events.

Subscribe now and save \$3 off the newsstand price.
Enjoy one full year (6 issues) for just \$18.

NO RISK GUARANTEE: If not completely satisfied with your first issue, you may cancel your subscription and we'll refund your entire purchase price.

MODEL EXPO PUBLICATIONS, INC.

23 Just Road
Fairfield, NJ 07007

MAIL THIS COUPON TODAY!

YES! Please enter my subscription to SHIPS IN SCALE for the period checked.

- ☐ 1 YEAR (6 issues) \$18. (Regular newsstand price is \$21/year!)
- ☐ 2 YEARS (12 issues) \$34. (Lock in bigger savings for 2 full years!)

Subscriptions for Canada:

1 year \$22; 2 years \$41.

Subscription for other foreign countries:

1 year \$26; 2 years \$46.

- ☐ My check or money order is enclosed.

☐ Charge my credit card.

☐ Visa

☐ MasterCard

☐ American Express

Card No.

Exp. Date

Signature

Name

Address

City

State

Zip

Please allow up to 8 weeks for delivery of your first issue.

FSM 55

SUPERBLY DETAILED AIRCRAFT PRINTS

Signed, limited editions (pencil sketches) \$28.00 each, postage paid. Satisfaction guaranteed.



1.	T-43	14 X 31
2.	T-37	14 X 29
3.	T-38	14 X 29
4.	F-4C	18 X 37
6.	F-4E	18 X 37
8.	F-16	14 X 29
9.	F-15	16 X 29
10.	A-10	14 X 29
11.	C-130E	14 X 31
12.	C-141A	23 X 29
13.	KC-135	16 X 29
15.	P-51	18 X 29
16.	B-52H	12 X 36
17.	F-86	18 X 24
18.	T-2C	12 X 27
19.	B-17G	21 X 22
20.	C-141B	14 X 31
21.	F-4D	18 X 37

Please order by number.

Send large SASE for full list of available prints.

VISA/MasterCard Accepted.

densa fine art 536 MORSE AVENUE SCHAUMBURG, IL 60193

D & J HOBBY

Located in
San Francisco-San Jose area

D & J Hobby & Crafts
96 San Tomas Aquino Road
Campbell, CA 95008
Ph. (408) 379-1696

We have no catalog, but we do sell mail order. Send SASE for your specific inquiries.

COME IN AND VISIT OUR NEW LARGER STORE

WE CARRY COMPLETE LINES OF:

- ★ Imported Aircraft, Ships and Armor Kits
- ★ Fantasy Miniatures & Games
- ★ Miniatanks & GHQ Micro Armor
- ★ Humbrol—Polly S—Floquil
- ★ Paasche Airbrushes & Parts
- ★ Scratchbuilding Supplies
- ★ Wargames and Miniatures
- ★ Decals, Magazines and Books

Open: Mon-Thurs-Fri 10:30-9 Tues-Wed 10:30-6 Sat 10-5:30 Sun 12-5:30

SCREWS GOT YOU CONFUSED ? DO YOU GUESS AT THE PITCHES ?

NOW-An easy to use, fool proof, tool that eliminates the guesswork !

The precision engineered "Screw identifier" saves time and prevents costly errors. Small in size for shirt pocket carrying yet practical in utility to identifying all popular "Inch System" machine screws. Identifies size, basic diameter, and pitch of UNC and UNF machine screws from number 1 through 5/16".

Manufactured in white, high-impact polystyrene for long life.

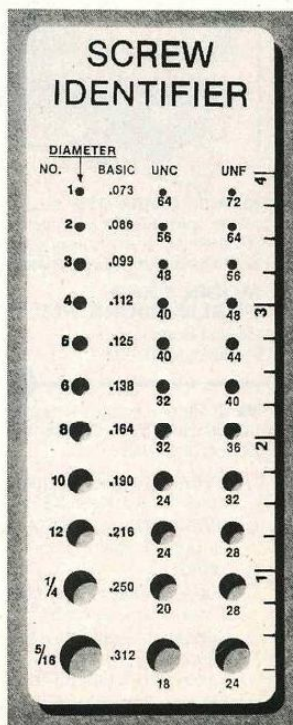
Size: 5 1/4 x 2 x .118 Inches.

\$3.00 post paid.

Michigan residence add 4% sales tax.

Order from **RUELLE'S**

P.O. Box 421, Drayton Plains, Mich. 48020



VIDEOTAPE BRIEFS



NASA: The Space Series

This 111-minute videocassette consists of four documentaries produced by NASA: "The World Was There" on the Mercury flights, "Legacy of Gemini" on the two-man Gemini missions, "Flight of Apollo 11" on the first lunar landing by Armstrong and Aldrin, and "Apollo/Soyuz" (narrated by Yul Brynner) on the joint U. S. and Soviet space flight. Each color film emphasizes the open and peaceful nature of U. S. manned space flights.

The tape is available in either VHS or Beta format from Motorbooks International, P. O. Box 2, Rev., 729 Prospect Avenue, Osceola, WI 54020; the price is \$79.95.

Pilots' Heaven

"Pilots' Heaven" is a 42-minute black-and-white training film produced during WWII by Hal Roach Studios for the Army Air Forces. Its purpose was to keep aviation cadets out of pilots' heaven by teaching them to avoid the nine most common causes of training losses — such as taking off without consulting checklists and Form 1, ignoring notices to airmen, and failing to read instruments. All are shown to cause fatal crashes.

The film's production quality is as good as most Hollywood movies of the period; late-night television viewers may recognize several of the actors.

Included on the same cassette is a 52-minute black-and-white documentary, "The Stillwell Road," produced in 1945 by the U. S. Army Signal Corps. The film describes operations throughout the China-Burma-India theater during WWII, but focuses on how U. S., British, Chinese, and other Allied forces, including those led by General Joseph Stillwell, planned and built the Stillwell Road through Japanese-occupied Burma from India to China. (This highway was also called the Burma Road and the Ledo Road.)

The narration by Ronald Reagan is excellent, as is the editing; there are memorable scenes of road building through jungles and over mountains; these are complemented by air and ground combat sequences.

The tape is available in either VHS or Beta from NF Video, 1219 Sunset Plaza Drive, No. 3, Los Angeles, CA 90069; the price is \$59.95.

FSM

When writing to advertisers, please mention you saw their advertisement in **FINESCALE MODELER**

NOVA

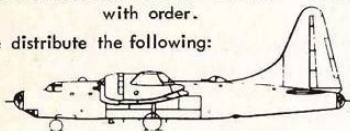
1/72 SCALE VACUFORM KITS FOR THE
EXPERIENCED MODELER

Next from NOVA MODELS - the Tu-22M
BACKFIRE

Available Spring 1985. Complete with metal
landing gear. Make your reservations now!
Latest kit from NOVA MODELS - Sukhoi
Su-15 FLAGON. • \$9.95 plus \$2.50 shipping.

SEND \$1.00 for complete listing of vacuform
kits available thru NOVA MODELS - refund
with order.

We distribute the following:



SUTCLIFFE 1/72 vacuform CONVAIR B.32
Dominator. Metal propellers; injection-
molded wheels and parts; Decals, \$22.50.

DEALERS ENQUIRIES INVITED for:

- AIRFRAME vacuform kits
- AIRVAC vacuform kits
- NOVA MODELS vacuform kits
- SUTCLIFFE vacuform kits.

NOVA MODELS

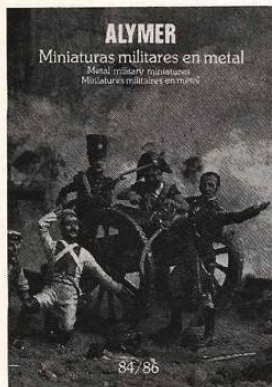
P.O. BOX 9809

Fountain Vly. CA 92728

Ph: (714) 962-4833



MILITARY MINIATURES BY ALYMER



This 58 page catalog features full
color pictures of over 900 different foot
and mounted figures from Egyptian
Pharaohs to Ronald Reagan.

Also featured are chariots, wagons
and artillery pieces.

ALYMER

Over 40 years of fine European
craftsmanship.

For this classy catalog, please send
\$5.⁰⁰ (credited to first \$50.⁰⁰ order) to:

Brian K. Mitchell

P.O. Box 52414

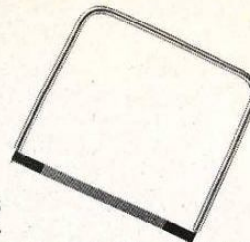
Livonia, MI 48152

DEALER INQUIRIES INVITED

FLEX-I-FILE™

MAKES MODELLING EASIER

Here's a versatile new hobby tool for clean-up
and finish preparation of plastic, wood and
metal models. Easy-to-handle frame with tough
abrasive tapes allows you to reach into tight
corners, erase parting lines, smooth joints and
blend contours with precise control.



S-700 STARTER SET: One frame and 6 assorted tapes - \$3.98

TAPE REFILLS: Pkgs. of 6; Fine, Medium or Coarse - \$1.00 ea.

At your local dealers, or order direct. Postpaid in U.S. and Canada; others add \$1.00.

CREATIONS UNLIMITED

2939 Montreat Dr. N.E. Dept. F
Grand Rapids, Michigan 49505

When writing
to advertisers,
please mention

FineScale Modeler
magazine

MINIATURE CARS



from around the world

We stock nearly 5000
different scale model autos.

Diecast, promotionals,
plastic and metal kits.
Fully detailed catalog \$2.00.

MINIATURE CARS

Box 221-62 Bernardsville, NJ 07924

Tel 201-267-5612 Telex 150183

1001 UNIQUE WOOD SHAPES

IN PRECISION SCALE BASSWOODS

Today, basswoods are preferred
over balsa more and more by the
serious hobbyist, prototype model
maker, dioramist, architect, etc.,
because of structural strength,
ability to hold detail, ease of work-
ing and longevity. From structural
shapes, doll house mouldings,
carving blocks, decking, strips and
sheets to hardware and complete
model railroad kits, Northeastern
offers a complete line of quality,
precision scale products. Satisfac-
tion guaranteed or your money back.

For fastest action—mail this coupon today!
OK Northeastern—rush me your catalog and prices today.

Name _____

Firm _____

Field of interest _____

Street _____ City _____

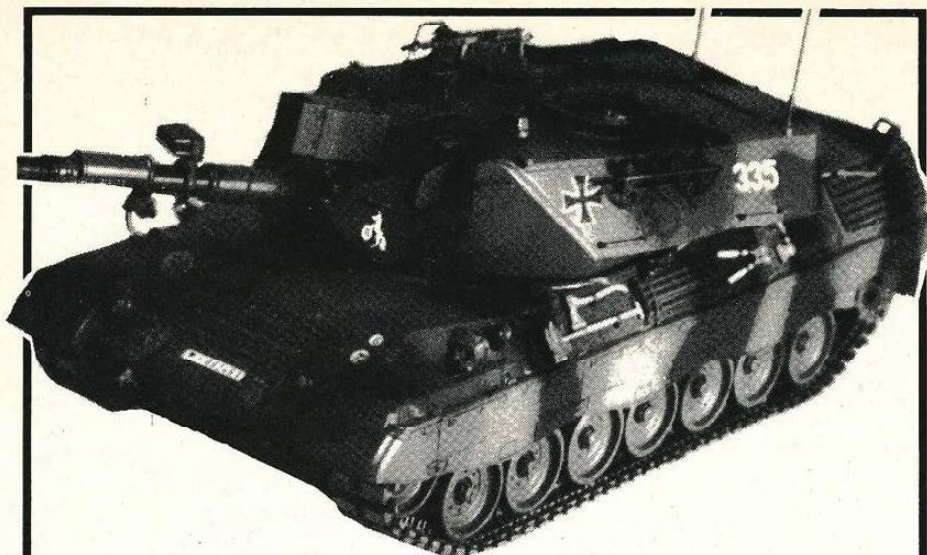
State _____ Zip _____

SEE YOUR
LOCAL DEALER
OR WRITE
FOR OUR
CATALOG
AND
PRICES
TODAY!



**NORTHEASTERN
SCALE MODELS INC.**

P.O. Box 425FSM
Methuen, MA 01844
(617) 688-6019



NEVER SEND A LEOPARD INTO BATTLE WITHOUT HIS SPOTS

The realistic edge...the mark of a true modelmaking enthusiast, makes every model look its best. Atlanta Airbrush can give you that edge by providing you the widest selection of airbrushes, state of the art equipment and supplies. Big discounts of up to 40% can help you save on everything from replacement parts to compressors. Our knowledgeable service department will be glad to offer helpful suggestions and our shipping department is faster than an F-111.

So What Are You Waiting For!

FOR A FREE CATALOGUE CALL OR WRITE:



P.O. Box 53097 Dept. FSM
Atlanta, Georgia 30355
1-800-241-3242



☒ YES! Send me a FREE Atlanta Airbrush Catalogue.

Name

Address

City State Zip

Let us know what you think! Comments, suggestions, corrections, and additional information on FSM articles are welcome in this column. Letters submitted for publication should be clearly marked "To the Editor" on both the envelope and the letter, should be typed or hand-printed, and should be no more than 300 words long.

More reviews, and more Dora. I wrote you a letter of praise shortly after I read the first issue of your fine magazine, complimenting you on the professional approach and layout and the quality of articles and photography. Well, you have managed to improve on those first issues to such a degree that I am compelled to subscribe so that I won't miss a single issue.

I have only two suggestions that I hope you will find helpful. First, one of my favorite departments is FSM Workbench Reviews, which I have come to rely on for determining whether or not I purchase a kit. Would it be possible to add two or three more kit reviews per issue? This would be greatly appreciated by me as well as, I suspect, other readers.

My other suggestion concerns FSM Showcase. More photographic coverage of the excellent models would be helpful and informative to your readers. It is not necessary to include a step-by-step construction run-down, but more pictures of different views would really be helpful and entertaining. A case in point is the feature on the impressive Dora by Lewis Pruneau in the January/February issue. There were only two main views of this fantastic model and I found myself longing for closeup views of this masterpiece.

I hope that these suggestions are of some constructive help and make an already excellent publication better. Keep up the good work.

*Jim Tait
Surrey, B. C., Canada*

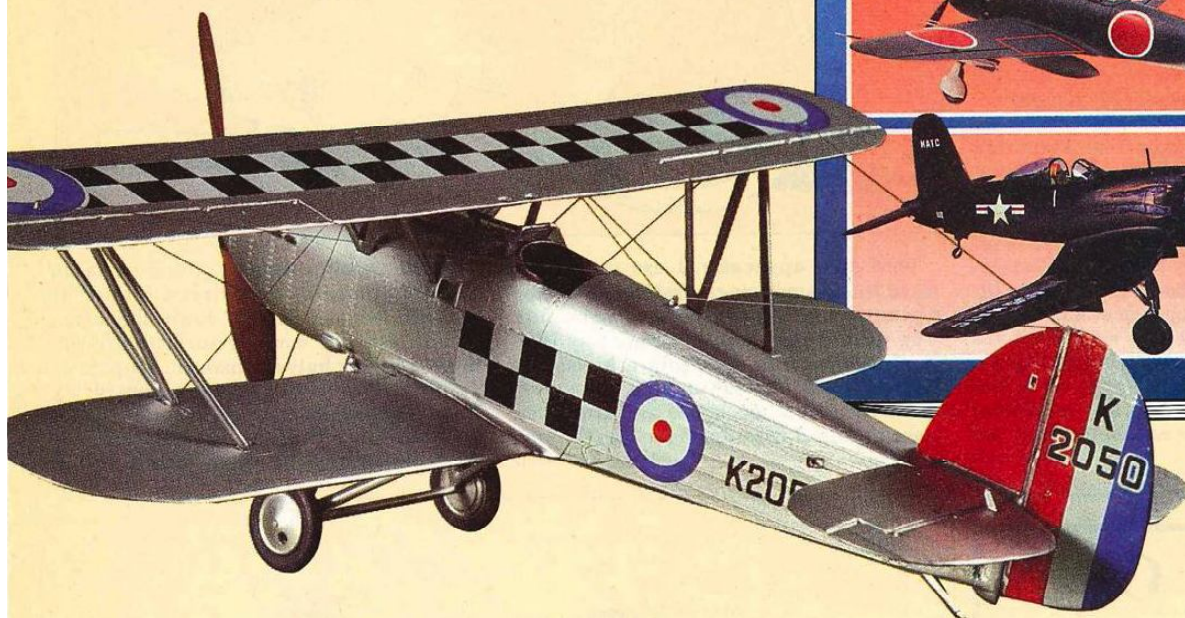
Loved your article on the German railway gun Dora, but there are only two pictures, which seems so inadequate for the subject. Is it possible to obtain more photos and information from the author for a subject of such importance? Modeling the gun would be a terrific challenge and of interest for any dedicated serious hobbyist as this area is a little-known aspect of military history and design.

*Paul Rohe
Martinsville, N. J.*

[We presented everything we had on Dora, and what ran in the magazine was all the information that builder Lewis Pruneau could provide. As so often happens, Lewis had no plans to submit the material to FSM when he built the model, and didn't take step-by-step photos or keep records of his construction techniques. We had to present Dora as a Showcase instead of a how-to feature. But take heart — Lewis has promised to prepare a construction feature on his next railway gun project! Also on the bright side, we're moving heaven and earth to make room for more Workbench Reviews in future issues. — Bob Hayden.]

FSM

*Here's everything
you need to know
to build superb
miniature aircraft!*

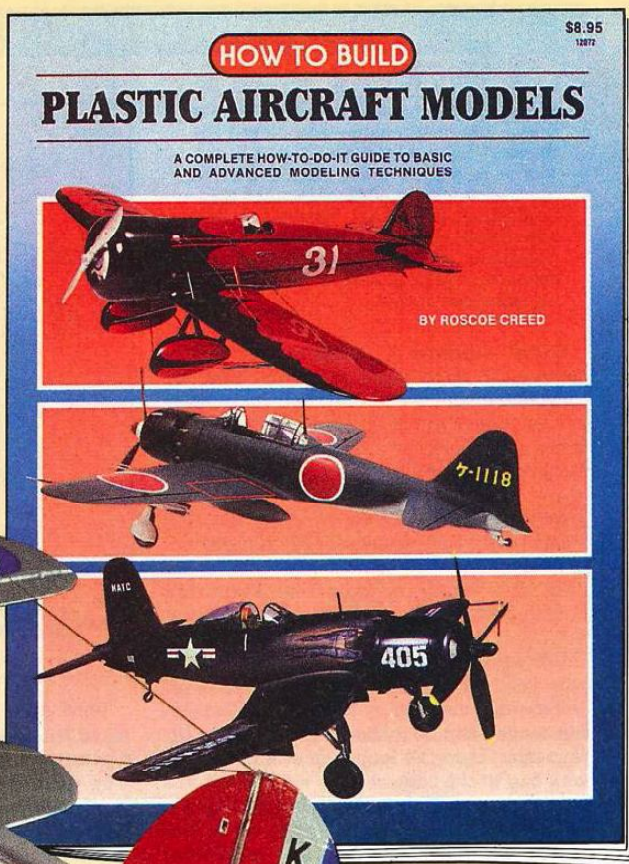


HOW TO BUILD PLASTIC AIRCRAFT MODELS is your complete guide to basic and advanced scale modeling techniques! Author Roscoe Creed will show you, step-by-step, how to build superb miniature aircraft that look like the real thing. In 60 pages filled with color photographs,



you'll learn how to fit, fill, and smooth seams, how to detail cockpit interiors, straighten warped parts, and apply paint and decals to your models.

Once you've mastered these techniques, the author will take you beyond out-of-the-box model building and into detailing, weathering, and displaying your models. Improve your modeling skills – and increase your modeling fun – ask for HOW TO BUILD PLASTIC AIRCRAFT MODELS, \$8.95, at your favorite hobby shop, or use the coupon to order direct today!



- Choosing the right first kit
- Basic fitting and assembly
- Painting with brush and airbrush
 - Applying decals
- Final assembly and finishing
 - Adding extra details
- Metallic finishes and weathering
- Displaying your finished models

DEPT. 38711

KALMBACH BOOKS

1027 N. Seventh Street, Milwaukee, WI 53233

Enclosed is \$_____ for _____ copies of HOW TO BUILD PLASTIC AIRCRAFT MODELS at \$8.95. Include for postage and handling: U. S. \$1; foreign \$1.50. Wisconsin residents add 5 per cent sales tax.

Name _____

Street _____

City, State, Zip _____

Charge to: ☐ MASTERCARD ☐ VISA Exp. Date _____

Card Number _____

Signature _____

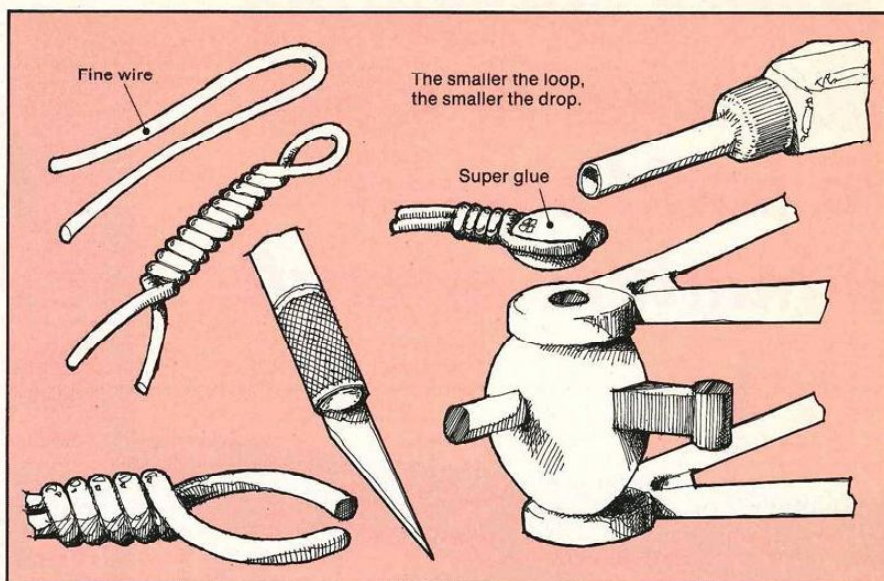
If you don't wish to clip your magazine, copy the necessary information including department number on a separate sheet. Price subject to change. © 1985 Kalmbach Publishing Co.

Would you like to share information on a useful tool or technique with other FSM readers? Send a brief description of the tool or technique and a black-and-white photo or a pencil sketch to FSM Tips, FINESCALE MODELER, 1027 North Seventh Street, Milwaukee, WI 53233. Please enclose a stamped, self-addressed envelope for return of photos. Tips are paid for upon publication.

Decal storage I. Office supply stores carry clear vinyl sheet protectors that are ideal for storing decals and their instruction sheets. The vinyl protectors are sealed on three sides, keep out excess humidity, and keep the decals flat. *Mark Elder*

Decal storage II. I keep my decals in a Tupperware Bacon Keeper. It's big enough to hold dozens of the largest aftermarket decals. The nearly airtight seal keeps out harmful humidity. *Brian Slipper*

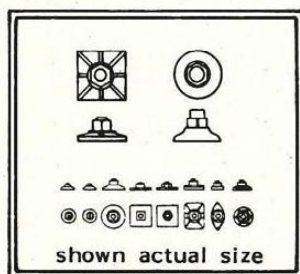
Convenient trash bag. For those of us who don't enjoy the luxury of a full-time workbench, cleanup at the end of a modeling session can be a chore. To make it a little easier, tape the long side of a large grocery bag to the edge of your workbench. It's easy to drop trash into it without fouling the floor or rug with litter. When you're finished working, just sweep any additional trash and dust over the edge of the table and into the bag. *Jack Clark*



Wire glue applicator. I use this home-made tool to apply single drops of super glue (cyanoacrylate). First, twist a strand of fuse wire (or any fine wire) to form a tiny loop. Next, cut the loop open with a knife. The loop will hold a small drop of super glue. When the drop is touched to the surface you want to glue, it flows out of the loop through the gap. *Giuseppe Bertocchi*

Large sanding surface. Building large vacuum-formed kits requires a large, flat sanding surface to rub down the extra plastic from the bonding surfaces of fuselage and wing halves. Instead of taping or pinning sheets of sandpaper to a board, try this: Check with local glass suppliers for salvaged 1/4" or thicker plate glass recovered from damaged store fronts. Small

HOT OFF OUR PRESS



Grandt Line has styrene and brass nuts, bolts and washers in 28 different shapes and sizes--from .25" down to .010" diameter!!

For illustrated flyer, send 75¢ and business size SSAE to

Grandt Line
1040B Shary Court
Concord, CA 94518

SUPPORT
I
P
M
S



SUPPORT
I
P
M
S

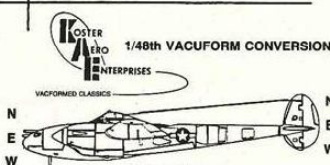
Model By: Ron Cosgrove

FALCON
(1/48 Scale)
Spitfire XIVc

Photo By: War Eagle

P.O. BOX 255
New Baltimore, Michigan 48047
(313) 725-7345

WAR EAGLE
* INCORPORATED *



VACUFORMED CLASSICS	
(KAE-1) Bf 109/Spitfire conversion	\$6.95
(KAE-2) Fw 190/Magnum conversion	\$6.95
(KAE-3) P-51/P-51A/A-36 conversion	\$7.95
(KAE-4) B-17C/D/E conversion	\$10.95
(KAE-5) Ju 88 (complete kit)	\$21.95
xxxxxxx (injection parts*decals)	
(KAE-6) P-38E/F/G conversion	\$7.95
xxxxxxx (decals)	
(KAE-7) Fokker D VIII (complete kit)	TBA
(KAE-8) Sopwith Triplane (complete kit)	TBA
(KAE-9) A-20 (complete kit)	TBA

NOTE: NEW PRICES: Effective 3/1/85
UPS SHIPPING INCLUDED

WAR EAGLE TM

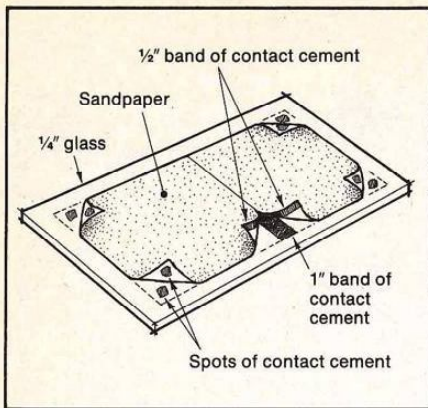
CHECK or MONEY ORDERS ONLY.
(Canadian orders add \$1.00)
ALL CONTINENTAL U.S. orders
shipped UPS POSTPAID.
©1984 War Eagle, Inc.

N	E	W		N	E	W
			(1/72) TRIPLE Conversion #3 (Mirage IIID*F-106B*F9F-8T)			
(1/48) B-57 "Canberra"						\$24.95
(1/48) Hawker "Sea Fury"						\$13.95
(1/48) Northrop F-89D "Scorpion"						\$19.95
(1/48) Lavochkin La 5FN						\$12.95
(1/48) Seafire FR.47						\$12.95
(1/48) Martin Baker M.B.5						\$12.95
(1/48) Focke-Wulf Ta 152H						\$12.95
(1/48) Focke-Wulf Fw 190D conversion						\$6.95
(1/48) Be2c						\$12.95
(1/32) Fokker D VIII						\$12.95
(1/48) Spitfire XIV (conversion)						\$6.95
(1/72) Mistel 2 (long nose)						\$2.95
(1/72) TRIPLE Conversion #1						\$12.95
(F-100F*TA-7C*RF-8)						
(1/72) TRIPLE Conversion #2						\$12.95
(C-1 Trader*EP-3E Orion*3/4 Banshee)						
(1/72) Martin Baker M.B.5						\$ 8.95

(UPS Shipping Included)

TO OUR CUSTOMERS: WAR EAGLE, Inc. is no longer the U.S. distributor for FALCON products. However, we still maintain a complete line of FALCON vacuum kits for MAIL ORDER sales.

carries KOSTER, GULL, WINGS 48, FALCON, (illustrated catalog \$2.50)
DEALER INQUIRIES INVITED ON GULL MODELS & WAR EAGLE
ALL CORRESPONDENCE SHOULD BE ADDRESSED TO THE ABOVE P.O. BOX

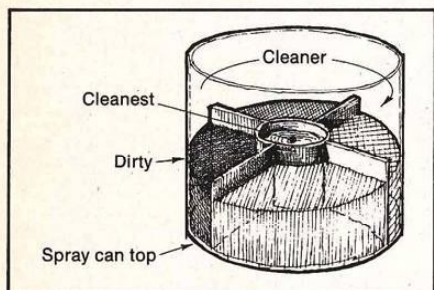


pieces can be cut to your specifications.

Attach sheets of sandpaper to the glass using contact cement. Contact cement sets quickly, is waterproof, and won't slip under normal sanding pressures. Place a drop of cement about 1/2" from each corner, press it down on the glass to transfer some of the cement, and lift off quickly. After the cement dries, reposition the paper and press firmly.

When butting sheets of sandpaper together, smooth a band of cement 1" wide on the glass and 1/2" bands on the back edges of the sandpaper. Avoid getting cement on the grit side of the sandpaper. When the cement bands are dry, smooth the edge of one sheet down on the glass and butt the second sheet as tightly as possible. Attach the other corners as before.

Fred Helmick



Spray can tops I. Many spray paint can caps have reinforcing braces that divide them into four or more compartments. I pour paint thinner into each section and clean my brushes by removing most of the paint in the first bath and moving on to the next. The last bath is almost unpolluted. As I go full circle in the cap, the brush becomes progressively cleaner.

Kurt Sladek



Spray can tops II. I place the top of a spray can upside down on my workbench and use it to hold bottles of paint. The inner circle of plastic is just the right size for Testor, Pactra, Polly S, and other 1/2- or 5/8-ounce bottles.

James Bryan

When writing to advertisers,
please mention you saw
their advertisement in
FINESCALE MODELER

VULTÉE P-66
FULL COLOR
1/24 CARD
MODEL KIT
Catalog .25¢
META MODEL
P.O. BOX 221
BATAVIA, NY 14020
\$ 5.50 ppd

METALIZER™

THE ULTIMATE IN MODEL METALIZING FINISHES

NEW IMPROVED FORMULA

A unique product for unique models. From the people who invented the world's first plastic model metalizing finish. No other metalizing finish offers you the versatility of Metalizer. For all types of aircraft, car, ship, train, armour and science fiction models. Airbrush on and buff to a brilliant sheen in minutes. Metalizer is a tough and durable waterproof finish. With 13 metal shades, sealer and 2 dayglo colors to choose from.

1. ALUMINUM
2. STEEL
3. MAGNESIUM
4. TITANIUM
5. GUN METAL
6. EXHAUST
7. SEALER
10. DAYGLO-RED
11. DAYGLO-ORANGE
12. DARK ANODONIC GREY
13. METALLIC BLUE
14. GOLD
15. BURNED METAL
16. *COPPER
17. *BRASS
18. *ALUMINUM-NON BUFFING
19. *THINNER
101. *ALUMINUM PLATE
IN AEROSOL CANS
*NEW FOR 1983

METALIZER PRODUCTS
1019 BONITA ST.
TUSTIN, CA 92680

SEND STAMPED & SELF-ADDRESSED ENVELOPE FOR METALIZER BROCHURE
Dealer Inquiries Invited

BARE-METAL DECALS are extremely accurate. The artwork is superb and colors match FS595. They are thin and lay down like paint. They cost a little more than ordinary decals but they are worth it.

BARE-METAL FOIL is "the answer to a modelers prayers" when you want that REALISTIC metal surface. It looks like metal because it is metal. Easy to use, adhesive backed. All detail shows thru.
6 x 11 SHEET \$3.50

BARE METAL PLASTIC POLISH sanded or scratched surfaces polish back like new. Great for aircraft, cars etc. - 1 oz ... \$2.00

BEAUTIFUL decals for that finishing touch.

#72-1 F-106A, 191st FIG, MICHIGAN ANG.	\$3.00	#48-1 F-4C, 191st FIG, MICHIGAN ANG.	\$3.50
#72-2 U.S. National Insignia, WW II.	\$2.00	#48-2 RF84F/K, 191TRG and 127TRG, Mich. ANG.	\$3.50
#72-3 U.S. National Insignia, Present Day.	\$2.00	#48-3 F4E, 57th FIS, Keflavik, Iceland.	\$3.50
#72-4 F4E, 57th FIS, Keflavik, Iceland.	\$3.00	#48-4 F15's 48th FIS, Langley AFB, Virginia and	
#72-5 F15's, 48th FIS, Langley AFB, Virginia and		555th TFTS, Luke AFB, Arizona.	\$3.50
555th TFTS, Luke AFB, Arizona.	\$3.00	#48-5 F-106A, 191st FIG, MICHIGAN ANG.	\$3.75
#72-6 F106A, 101st FIS, Mass., ANG.	\$3.50	#48-6 F-106A, 101st FIS, MASS ANG.	\$3.75
#72-7 F106A, 177th FIG, New Jersey, ANG.	\$3.50	#48-7 F-106A, 177th FIG, NEW JERSEY ANG.	\$3.75

NEW! #48-8 U.S. NAT. INSIG. Contains 8 ea of the 7 types of 15" insignia presently used by the U.S. 4 x 6 sheet. \$3.50

POSTAGE AND HANDLING

Decals.35¢
Bare-Metal 1st Sheet.60¢ Each Additional.30¢
Polish (separate postage required) 1st Bottle60¢ Each Additional.30¢

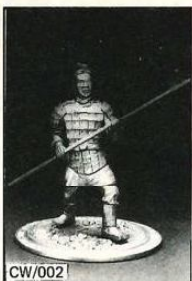
—DEALER INQUIRIES INVITED—

BARE-METAL FOIL COMPANY
P.O. Box 82
Farmington, Michigan 48024

NEW FIGURES!



CW/001



CW/002



CW/003



EF/001



CW/S-001

We proudly introduce our 110mm Ancient Chinese Warriors Series and 90mm Elite Force Series. All figures are carefully researched and beautifully detailed, casted in quality white metal and come complete with a painting guide and a brief history of the figure.

CW/001: Xie Bao, the Twin-tailed Scorpion Price - \$29.50
CW/002: Armoured soldier of Chin Dynasty Price - \$29.50
CW/003: Yu Chen, a general of Han Dynasty Price - \$29.50
EF/001: US Paratrooper, Grenada Price - \$29.50
CW/S-001: nomadic warrior of Song Dynasty Price - \$7.00

Latest release (not shown) included:
CW/004: Auk Fay, General, Song Dynasty (Seated)
EF/002: U.S. Lrrp Viet Nam
U.S. & Canada inquiries direct to:

Marco Polo Import, Inc., 2239 Tyler Ave., Unit 'A', So El Monte, CA 91733

ORIENTAL HERITAGE, RM. 1003, HARVEST BLDG., 29-35 WING KUT STREET, CENTRAL, HONG KONG.



Oriental
Heritage

Painting tiny parts. Wrap a piece of masking tape a couple of times around the end of a round toothpick, then reverse it and wrap it back on itself a few more turns, sticky side out. I like to leave a little overhang on the end so the tape can be bent or flattened to provide a larger sticky surface. Now you can stick tiny parts to your little handle for easy painting. When you're done, stick the sharp end of the toothpick into a block of plastic foam or blob of modeling clay and let the part dry. Propellers and other parts having shafts can be held by wrapping the shaft to the end of the toothpick.

Will Reynolds

FSM

When writing to advertisers, please mention you saw their advertisement in FINESCALE MODELER

CLASSIFIED ADVERTISEMENTS

PLEASE FURNISH STREET ADDRESS FOR FSM'S PRIVATE RECORDS WHEN USING A P.O. BOX NUMBER IN YOUR AD

This section is open to anyone who wants to sell or buy scale modeling merchandise. FINESCALE MODELER reserves the right to edit undesirable copy or to refuse listing.

RATE: 26¢ per word. MINIMUM charge is \$3.12. Count ALL initials, single numbers, groups of numbers (i.e., AFV or B-24), name, address number, street number, city, state, phone numbers each as one word. Zip code is free. Payment should be made in advance.

CLOSING DATE: Jan/Feb issue closes October 15, Mar/Apr issue closes December 15, May/June issue closes February 15, Jul/Aug

issue closes April 15, Sep/Oct issue closes June 15, and Nov/Dec issue closes August 15. We do not furnish box numbers.

ALL COPY: is set in standard 6-point type. First several words only set in bold face. If possible ads should be sent typewritten to insure accuracy.

READERS' NOTE: When advertiser says SAAE or SASE he requires stamped, self-addressed envelope with your inquiry. LSSAE is large envelope.

Send your ads to FineScale Modeler, 1027 N. 7th St., Milwaukee, WI 53233.

FOR SALE

Brookhurst Hobbies, 12741 Brookhurst Way, Garden Grove, CA 92641 has military kits from around the world! Plastic armor, aircraft, wargames, books, paints, tools. Mail orders sent anywhere. Catalog, \$3.

Recon Hobbies: Big discounts on armor, aircraft, ships, cars, games, hobby supplies, plus collectors' corner. Send \$1 for catalog to P.O. Box 123, Manhasset, NY 11030-0123.

We have the latest plastic, military, and automobile kit releases in stock. Mail order is a specialty with us. Also books, decals, paint, magazines, and more. Write or call. Ted's Engine House, 6307 Westfield, Pennsauken, NJ 08110. (609) 662-0222.

Airliner model kits, decals, related items. Large selection from all over the world. Low prices, compare and see! Mail order worldwide. \$1 for latest catalog. Visa/MasterCard. Starline Hobbies, Box 38, Stanton, CA 90680.

Gate 66, the airline modeler's newsletter, published bimonthly since 1974, covers all aspects of airline modeling. Well-illustrated, model kit news and reviews, how-to's, reader photos, and ads. Subscribe to the original Gate 66, \$9.50 per year in North America, \$18 per year worldwide. Checks payable to Starline. Mail to: Gate 66, Box 660, Stanton, CA 90680. Sample copy, \$1.75.

Armor and military vehicle book specialist. Hundreds of new titles available from our extensive stock. Tanks, SPGs, jeeps, trucks, etc. WWII, modern, etc. Many hard-to-get books from overseas, some exclusive with us. Also military insignia and uniform books and references. Member American Booksellers Association. Send three stamps or \$1 for latest 24-page illustrated catalog. Portrayal Press, P.O. Box 1913-W, Bloomfield, NJ 07003. (201) 743-1851.

Soldier molds, fox hunt, cannons, fantasy chess, Civil War, Napoleonic, and more. 15 mm to 80 mm castings. Painted soldier sets. Free brochures. Catalog \$1, soldier and catalog \$2. Coastal, Box 44-FS, Cedar Grove, NJ 07009.

Detailers and scratchbuilders. Let us help you with that special model. We have the supplies that you need. SAAE to Model Storehouse, 8580 Gaines Ave., Orangevale, CA 95662.

Model kits below retail. Imported and do-

mestic. Send SAAE for information. Pentagon Models, P.O. Box 564, Placentia, CA 92670.

Models! Buy direct from importers. Savings: Heller, Schabak, Eko, CEF, Eligor, Brumm, Starfix, Atlantics, Imai, KJD, more! Catalog \$1. D.A.L. Associates, Inc. Ref: FSM, P.O. Box 1237, Mountaintop, NJ 07092.

Finish your model with an engraved brass nameplate. Send SAAE for information and sample to Volant Plastics, P.O. Box 443, New Cumberland, PA 17070.

Discounted books on planes, helicopters, tanks, ships, weapons, cars, trucks, trains, war, sports, self-help, etc. For free catalog call (415) 782-2064 or write to TeleShop, FSM, Box 56873, Hayward, CA 94545.

Namophiles, cast resin 1/72 SUU-11 mini gun pods (six) in a set, (four) 2.75" Spad rocket tubes set, (four) 1/48 SUU-11 pods in a set, (four) set of 1/48 2.75" tubes, 1/35 (three) set of NVA/SF rucksacks, (three) set of AN/PVS-2 Starlight scopes, (10) set of M-26 frags, (four) set of helmets with covers, straps, bug juice, magazines, and cigarettes, (six) set M-56 M-14 ammo pouches with frags, (six) Marine single M-14 ammo pouches, (three) M17A1 gas mask bags, (five) individual first aid kits and (six) battle dressing/compass pouches to a set. Each set \$1.50 plus 75¢ per order. Complete listing available for SAAE. Send to Keith Pieper, in Country Hobbies, 1467 W. 2nd St., Mesa, AZ 85204.

Technical books: Metalworking, woodworking, electronics, automotive, plans, science. Large catalog, \$1. Eric Keats & Co., P.O. Box 796, Station A, Scarborough, Ont., Canada M1K 5C8.

Attention: Gamers and collectors. Over 100 superbly detailed 15 mm scale WWII AFV's, U.S., German, Russian, British, and Japanese, plus infantry figures. These are precision metal castings. Must be seen to be appreciated. Write for price list. Quality Castings, Dept. F, P.O. Box 11714, Alexandria, VA 22312.

Full-line catalog: Aircraft, armor, ships, cars, decals. Send \$1 to APC Hobbies, Box 122, Earlysville, VA 22936.

Unusual kits: Science fiction, T. V., movies, comics, figures, space, missiles, etc. Send SAAE for list. Sale: Aurora Captain Kidd or Dempsey versus Firpo, \$9 each, plus \$3 postage per order. John Green, 1821 W. Jacaranda, Fullerton, CA 92633.

Tamiya and other kits at discount prices.

Free shipping on orders over \$50 in continental U.S., add \$1.49 to orders under \$50. Send SAAE for brochure. Examples (1/35 scale): no. 3626 Sergeant York \$10.36, no. 3627 Merikava \$10.36. R. M. Groene & Co., Dept. MJ85, 867 Atlantic St., Lindenhurst, NY 11757.

Mustang Boss 302 hood kit! Convert Monogram's 1/24 Boss 429 hood using polystyrene insert, water drain, and metal shaker. \$4.20 postpaid. Solid hood insert, \$1.20 postpaid. Bill Hitchen, 6163 Ozanam, Chicago, IL 60631.

Plastic Kit Constructor, quarterly magazine for aircraft modelers. First 10 issues (six available now, while they last, four by subscription), \$18. Annual subscription \$10. Send to Wise Owl World-Wide Publications, 4314 W. 238th St., Torrance, CA 90505.

Aurora Green Beret figures, very rare. Also very early MOD-AC plastic carriage kits, Adams THOR missile kits, and more. Send SAAE for list to ABC Hobbycraft, 2155 Morgan Ave., Evansville, IN 47711.

Authentic uniforms and civilian clothing from 1800 to 1945. Precise reproductions including Civil War, Spanish American War, WWI, WWII, and much more. Send \$3 for our illustrated catalog. New Columbia, Box 524-FSM, Charleston, IL 61920.

Send 37¢ SAAE for list of plastic figures, military kits, and literature. Daniel Miller, 5-22 49th Ave., Long Island City, NY 11101.

Free catalog. All new for 1985. Many new items. Historical models and miniatures. Plastic model kits and figures: Airfix, ESCI, Fujimi, Nitto, Tamiya, Italeri, and more. White metal figures in all scales: Series 77, Tradition, Stadden, Willie, Northdown, MilArt, more. Diorama accessories, games, books, tools, plus free newsletter. Visa and MasterCard, phone orders, (213) 322-5001. Same day service. The Model Shoppe, 323 1/2 Richmond St., El Segundo, CA 90245.

700 different figures: Tradition, Scandinavia 30 mm figures sculpted by Charles Stadden and Olive Knight. Some of the finest figures in any scale. From \$2.38. Also "Willie" figures in 30 mm, sculpted by Edward Suren. Fine pewter figures from England. From \$2.90, catalog \$1, refundable. Dealer inquiries invited. Visa and MasterCard, phone orders, (213) 322-5001. Same day service. The Model Shoppe, 323 1/2 Richmond St., El Segundo, CA 90245.

1/35th scale military white metal figures by Northdown, miniatures from County Down, Northern Ireland. Plus 120 mm Zulu and 100 mm British SAS trooper. Send LSSAE for free illustrated list. Dealer inquiries invited. Visa and MasterCard, phone orders, (213) 322-5001. The Model Shoppe, 323 1/2 Richmond St., El Segundo, CA 90245.

Initial (Volume I, no. 1) copies of the following magazines for sale on a highest offer basis: Scale Modeler (have three no. 1 issues), Airline Quarterly, Model Car Science, Rod & Custom Models, Sea Classics, and Soldier. All in good or better condition. William Keel, 3211 Chapel Creek, no. 207, Dallas, TX 75220.

Dimestore generals: Duplicate scarce lead soldiers from your own collection. Will make inexpensive mold(s) for casting lead from figures you provide. You cast, or I can cast for you. Information, prices, \$1 refundable. Write E. H. Burley, 5620 Bayshore Rd., Palmetto, FL 33561.

For sale: 10-page booklet listing aircraft

camouflage colors from WWII, matched to FS 595A. Nine countries, over 240 entries, plus bibliography. Send \$2 to Mike Franklin, IPMS Tracks and Props, 507 Donovan, Bellingham, WA 98225.

1/15 Bandal Hummel W/in action no. 5, \$60. 1/450 Hasegawa Shinano, \$14. 1/200 Revell off shore oil platform, \$20. 1/144 Monogram Apollo moon rocket no. 6051, \$13.50. MPC no. 1930 X-wing fighter, \$5. Lelan Kuhlmann, 10711 28th St., N.E., Seattle, WA 98125. (206) 365-4839.

Super detailers: Liquidating huge accessories collection. LSSAE and \$2 for lists. Stan Vaughan, P.O. Box 061094, Ft. Myers, FL 33906-1094.

"101 WWII Diorama Ideas and Plans," new book, only \$8.95 postpaid. Stan Vaughan, P.O. Box 061094, Ft. Myers, FL 33906-1094.

Plastic unbuild plane and ship kits from the 1950's and 1960's for sale. Some Lindbergh and Aurora, mostly Revell "S" kits. Send \$1 for list. Romanowski, 3114 N. Laramie, Chicago, IL 60641.

Space ships and robots: One of the largest selections of excellent quality kits. Latest releases at affordable prices. New fall catalog, \$2. B & S Enterprises, 217-A E. Camp Wisdom, Suite 123 F, Duncanville, TX 75116.

Nothing looks like stainless steel like stainless steel. Stainless steel wire .004" diameter. Use for simulating brace wire on 1/48th or 1/72nd scale aircraft, spring rigging, hood safety pin lanyards on cars. \$1 a yard, two yard minimum. Outside North America add 25¢ postage and handling. Ohio residents add 6% sales tax. Airknocker Things Sales Co., Box 421-F, Bucyrus Lake, OH 43008-0421. Now stop stretching your sprue before you go blind!

Advertise militaria, trains, and toys monthly in "MX," international mart and exchange. 15¢ per word, \$3 minimum. Deadline: tenth of the month for the next month's issue. Subscription: \$12 per year, \$21 for two years, U.S. MasterCard and Visa welcome. Sample \$1.50. MX, Box 3F, Torrington, CT 06790. (203) 482-7667.

Urdan TC cupola for M48A5, \$4.35. T34/85 turrets model 1944, 1/35 scale, cast resin. Fits your T34/43 hull. \$9.75 each, postage included. John Morgan, 25418 Charles Ave., Hayward, CA 94544.

Diecast vehicles. Fire fighting, armor, construction, farm, and classic autos by Joal, EFSI, ERTL, Eligor, Solido, and Matchbox. Send a 25¢ SAAE to GRC Hobbies, 16 Paul Dr., Gainesville, GA 30501.

Slot cars: Chaparral, Ford GT, Ferrari, Chevrolet, AMT, Revell, Monogram, and many more. Large quantity of slot cars, kits, bodies, track, and accessories from the 1960's in brand new condition. SAAE for price list. Bill Centivire, P.O. Box 6669, New Orleans, LA 70114. (504) 348-9277.

Sending reference books and magazines. Numerous rare items. LSSAE with 40¢ postage. J. Foster, 167 Centre Ave., New Rochelle, NY 10805.

Military miniature bases, highest quality hardwood. Over 300 different combinations of wood, styles, and sizes available. Sampler package of six bases and listing, \$10 postpaid. The Base Camp, 33 Sheridan Ave., Metuchen, NJ 08840.

Glass domes. Protect those special military

miniatures. Mahogany base, ready for staining or varnishing, classic styling. Series '77 size (4" x 7") \$8 each, two for \$15 postpaid. 54 mm size (3" x 4") \$6 each, two for \$11 postpaid. The Base Camp, 33 Sheridan Ave., Metuchen, NJ 08840.

Diorama cube. 4" x 4" plastic cube. An inexpensive way to protect miniature groupings. Ideal for 54 mm or 30 mm figures. Hardwood maple base included. Ready to stain or varnish. \$6 each, two for \$11 postpaid. The Base Camp, 33 Sheridan Ave., Metuchen, NJ 08840.

The Base Camp, the place for high quality hardwood military miniature bases. Doing business for over 15 years. Thousands made. We serve the masters. Sample and listing, \$2. Send to 33 Sheridan Ave., Metuchen, NJ 08840.

Clear plastic for Mattel Vac-U-Form. .020 clear vinyl is cut to size and ready to use. Makes superior moldings for canopies, etc. New low prices: 20 sheets for \$4, plus \$1 postage; 50 sheets for \$8, plus \$1.50 postage. New value-pak: 100 sheets for \$15, plus \$2 postage. Free State Scale, Route 5, Box 118, Hagerstown, MD 21740.

German WWII: Armed forces book catalog. Over 1200 books. Send \$2. Historybooks, Dept. FSM, Broadway, London N.11 3 DU, England.

Rare! Taj Mahal kits, educational products, circa 1963, \$40. Martin XB-51's, Hobby-Time, \$50. Bean's Model & Hobby Store, 624 Main St., Longmont, CO 80501. (303) 772-3169. For these and many more.

"Jukebox Collector" magazine. \$20 per year. Sample \$2. 2545FSM S.E. 60th, Des Moines, IA 50417-5099. Visa or MasterCard accepted. Call (515) 265-8324.

Phoenix, Stadden, Historex, Valiant, Ensign, and many more. Catalog: \$2 plus LSSAE, refundable with first order over \$10. Also inquire about a military miniature business for sale. Good investment, good stock selection, and fair price. The exchange rate will be an asset. The Old Soldier, Box 1726, Pt. Elgin, Ont., Canada N0H 2C0.

WANTED

For trade: Revell 1/24 Vostok. Seeking one or both of the following unbuilt: Aurora "2001" moon bus or Revell Apollo-Soyuz. David Hanners, 614-B Lost Springs Court, Arlington, TX 76012. (817) 261-4012.

Will buy any old and new kits you no longer intend to build. Send list or call APC Hobbies, Box 122, Earlysville, VA 22936. Call (804) 973-2705.

Wanted: Monogram 1/48 scale D. O. 335, Monogram 1/48 scale M. E. 262, Monogram

1/48 scale P51-B. Send condition and price to Carl Swenberg, 620 Evergreen, Henderson, NV 89015.

Revell F-111 A+B 1/72 no. H-208, FineScale Modeler Spring 1982, Fall 1982. Revell Beagle models. Lelan Kuhlmann, 10711 28th St., N.E., Seattle, WA 98125.

ITC or Ringo 3812 Russian rocket tank F.R.O.G. Revell aircraft gift sets, Shizuko 105 Pershing, Aurora 311 LaCrosse. Contact Charlie Pace, Box 122, Earlysville, VA 22936.

Looking to purchase: Mid-1970's production. Clear vision Monogram Huey gunship (battery operated). New, unopened condition. Write to K. Quinn, 35 Apple Hill, Wethersfield, CT 06109. Give phone number.

Wanted: Airfix 1/48 scale (from England), Saturn IB launch vehicle. Kit came out in the 1960's. I will pay any price for unbuild kit of this extremely hard-to-find kit. Built kit is acceptable. Contact D. Comerford, Box 2245, George AFB, CA 92394.

Wanted: Slot car magazines from 1960's. Also old HO scale cars, books, Vac-U-Form by Mattel, etc. Ken Shapiro, 2313 Salem Village Rd., Baltimore, MD 21234.

Wanted: French Maginot Line models, books, R. Roper, Fortain, 2670 Bowdoin, LaVerne, CA 91750.

Wanted to buy: Auto Modeler magazine,

Volume 1, no. 1, Spring 1973; Volume 1, no. 1, Summer 1973. Will pay top price. Please write to Jim Coppinger, 456 Westside Ave., Jersey City, NJ 07304.

Wanted: 1/8 model automobiles (kit or built-up), Monogram, ITC, Bandai, Lindbergh, and Heller. 1/48 Monogram rag boats and other 1/48 and 1/32 ships, chassis for Renwal/Revell V8, clear plastic airplane and automobile kits, Marx play sets, and historical building kits. Bennett Alban, 1 First National Plaza, no. 3040, Chicago, IL 60603.

Wanted: Airfix 1/72 figure sets, 1733 Tarzan, 1719 Arabs. Best prices paid. David Clarke, 198 Second St., Englewood, NJ 07631.

Czech modeler seeks exchange. My hobby is the construction of model aircraft from kits. I am very interested in U.S. models, magazines, and books, and hope to find friends to exchange eastern European materials for western. Please write to: Jifi Sreber, Kalininova, 1447/31, 405 02 Decin VI, Czechoslovakia.

EVENTS

On-Con 1 Model Contest, September 7, 1985, Hampton Court, London, Ontario, Canada. Hosts are the London Plastic Modelers Society. IPMS rules in effect. For information contact John Magierowski, 764 Strand, London, Ont., Canada, N5Y 1S9.

LOCAL HOBBY SHOP DIRECTORY

TELL YOUR HOBBY RETAILER YOU SAW HIS AD IN FSM

Local Hobby Shop Directory listings are available for the next twelve issues for \$145 (payable in advance) or for the next six issues for \$80 (payable in advance), or at \$13.50 per issue (billed to established accounts for a minimum of six insertions). Ads will be set in standard listing typography. All insertions must be consecutive and may be charged if you have credit established with us. No mention of mail order business or area code permitted.

CLOSING DATE: Jan/Feb issue closes October 15, Mar/Apr issue closes December 15, May/Jun issue closes February 15, Jul/Aug issue closes April 15, Sep/Oct issue closes June 15, and Nov/Dec issue closes August 15.

ARIZONA — Glendale

Specialized for the detail modeler.
Complete reference library.
Headquarters for ship models & parts.

VAL'S HOBBY HANGAR
5858 W. Camelback Rd. 934-6174

ARIZONA — Phoenix

The hobby shop for the scratch model builder, including plastic kits, landscaping materials, basswood, balsawood, hardwoods and HO & N scale trains.

SCALE MODEL SUPPLIES
2416 E. Thomas Rd. 956-1279

CALIFORNIA — Anaheim

Everything for the model ship builder; RC boats, cars, planes, military, science, tools, books & rocketry. AT HOBBY CITY. Open Mon-Fri 10-8. Sat & Sun 10-6.

CENTURY MODELS
1238 Beach Blvd. 821-8320

CALIFORNIA — El Cajon

Plastic aircraft, armor, ships, cars, and sci-fi kits. Also 1/43 die-cast cars. Open Mon-Fri 11-6. Sat 10:30-5. Sun 12-4.

MILITARY EMPORIUM
700 N. Johnson #N 447-6662

CALIFORNIA — El Segundo

One of the finest in historical models and miniatures. Complete selection of plastic model kits, miniatures, in all scales, accessories, books and much more. Open 7 days.

THE MODEL SHOPPE
321 Richmond St. 322-5001

CALIFORNIA — Fountain Valley

Trains, planes, ships, cars, tools and books. Great variety. Run by professional modelers for modelers. Open 7 days. Mon-Thur 10-8. Fri 11-9. Sat 10-6. Sun 10-5.

COLEMAN'S MODEL YARD
18120 Brookhurst St., #21 964-8998

CALIFORNIA — Garden Grove

Military kits, aircraft from around the world. Plastic armor, aircraft, wargames, books, paints, tools. Open Mon-Thur 12-8 pm. Fri 12-8:30. Sat 10:30-7. Sun 12-5.

BROOKHURST HOBBIES
12741 Brookhurst Way 636-3580

CALIFORNIA — Lakewood

Importers of scale models, accessories, supplies, books & magazines from around the world plus all domestic lines.

THE MILITARY SHOP
Lakewood Center Mall No. 128 630-5556

CALIFORNIA — Los Angeles

Trains, all makes & sizes, new & used. Scenery, figures, structure kits, tools, paints, scratchbuilding supplies, books. We buy old trains & toys. Closed Sunday

ALLIED MODEL TRAINS
10938 W. Pico Blvd. 475-0463

CALIFORNIA — Los Angeles

We stock Revell, Monogram, AMT, Tamiya, Testor, Hasegawa & more. Tools & supplies. Also R/C planes, cars, boats, HO & N trains. Open Monday-Saturday 10:15-6 pm.

NATICK STORE
209 W. 4th St. (Downtown) 626-3339

CALIFORNIA — Los Angeles

Plastic kits, military & fantasy miniatures. Plus paints, tools and accessories. Open Mon-Thur 9-5. Fri & Sat 9-7. Sun 11-5.

OUR STORE
5011 York Blvd. 256-3577

CALIFORNIA — Orange

Complete stock of styrene, paints, supplies & kits for modelers. One of Southern California's most complete stocks of model railroad supplies from #1 ga. to Z ga. Open 7 days.

FRANK'S HOBBY SHOP
6667-668 N. Tustin Ave. 639-9901

CALIFORNIA — Ontario

We carry the tools, wood, plastic, and kits to complement any hobby field. Mon-Fri 10 a.m.-7 p.m., Sat 10 a.m.-6 p.m.

JACK'S HOBBYCRAFTS
2509 So. Euclid 984-8700

CALIFORNIA — Sacramento

Huge selection of foreign and domestic plastic kits. Aircraft, armor, cars, Sci-Fi & ships. Books, paints and supplies. Open 7 days a week.

RIVERSIDE HOBBIES
5770 Freeport Blvd. Suite 16 392-9739

CALIFORNIA — Upland

One of the largest selections of kits, reference material, and accessories in the southwest.

J&M HOBBIES
1655 N. Mountain 985-9212

CALIFORNIA — Walnut Creek

Military kits, books, games, and figures. Open 11 a.m. to 5:30 p.m. daily.

CENTURION MILITARY HOBBIES
3087 N. Main St. 937-2623

CALIFORNIA — Westminster

New in Orange County! Full line of model aircraft, armor, ships, cars, space figures, books, paints, decals, art. Open 7 days. Owner member I.P.M.S. USA.

ACCU-SCALE MODELS & HOBBIES
6454 Westminster Ave. 898-9591

COLORADO — Grand Junction

Western Colorado's complete hobby center. Mon-Fri 10 a.m.-6 p.m., Sat 9:30-5:30.

The HOBBY HUT
1125-27 North Ave. 242-8761

CONNECTICUT — Bridgeport

Most major and obscure brands. Trains, military, autos, boats, ships, RC cars. Collector kits

FINE SCALE HOBBIES
3488 Fairfield Ave. 366-0116

CONNECTICUT — Cos Cob

Trains, planes, armor, doll houses and miniatures. All hobby accessories.

HOBBY HOUSE
405 E. Putnam Ave. 869-0969

CONNECTICUT — Enfield

Old kits & latest releases. One of the largest selections of military and aircraft on East Coast. Near Bradley Air Museum. Open 7 days a week.

CRAFTEC HOBBIES
128 South Road 749-0614

CONNECTICUT — Manchester

Complete plastics, cars, planes, trucks, ships. Military, diorama supplies, decals.

The TRAIN EXCHANGE
71 Hilliard St. 646-0610

CONNECTICUT — Milford

#1 in specializing in hard-to-find models, domestic and foreign.

HOBBY HAVEN
395 Boston Post Rd. 874-4434

FLORIDA — Ft. Lauderdale

Full service shop for - beginners to craftsman - kits to finished models. Domestic & import lines. Large selection of kits & supplies for all scales. Complete tool & finishing department.

WARRICK CUSTOM HOBBIES
3250 Davie Blvd. 791-1156

FLORIDA — Ft. Myers

Z, N, HO, O scale trains & accessories. Planes, cars, boats, rockets, games, R/C, plastics, supplies. New & used. Open daily. Special orders welcome.

CARL WILSON'S CLEAR TRACK LTD.
3506 Palm Beach Blvd. 332-0165

FLORIDA — Orlando

Excellent selection of plastic model kits, paints and accessories. Open Mon - Sat 10-6. Fri evenings until 8. Closed Sunday.

BOB'S HOBBY CENTER, INC.
7333 Lake Underhill Rd. 277-1248

FLORIDA — West Palm Beach

Fine tools. Supplies. Special orders. Mon-Fri 9:30-6. Sat 9:30-3. Closed Sunday.

CRAFT HOUSE HOBBY SHOP
1079 N. Military Trail 683-0764

GEORGIA — Smyrna

HO & N scale for your railroading enjoyment. Complete line of plastic models and paints. Open daily 10-7. Sat. to 5. Closed Sunday.

HOBBY JUNCTION
3260 S. Cobb Drive 432-2538

ILLINOIS — Chicago

Complete stock domestic/imported N, HO, O kits and ready-to-run trains and supplies. Lionel, LGB, Unimat; crafts, boats, airplanes, live steam, collector's items.

TROST HOBBY SHOP
3111 W. 63rd St. 927-1400

ILLINOIS — Des Plaines

A complete model shop. Plastic kits, paints, decals, diorama materials, books, detail parts. Close to O'Hare. Open 7 days a week.

DES PLAINES HOBBIES
713 Center St. 297-2118

ILLINOIS — Orland Park

Large model selection. Cars, military, planes, RC cars. LGB, Lionel, HO trains. Buy, sell, trade. Open Mon thru Fri 4-9. Sat 10-5. Sun 12-5.

ORLAND HOBBIES
14620 LaGrange 460-2778

ILLINOIS — South Holland

One of Chicago area's largest selections of plastic kits. 200 military, 500 cars, 400 planes, 100 ships, 50 trucks.

SCALE MODELS
1048 E. 162nd 339-3922

IOWA — Des Moines

One of the Midwest's best selections of plastic models (injected & vacuumformed), paints, decals, books, tools & supplies.

IOWA SERVICE HOBBY
2706 Beaver Ave. 279-1173

KANSAS — Overland Park

One of the Midwest's finest selections of military models, miniatures, books, modeling supplies, war and fantasy games.

THE KING'S CROWN
6860 W. 105th St. 341-6619

KANSAS — Wichita

Plastic kits galore. Over 3,000 new and golden oldies. Scratchbuilding materials and hobby supplies. Also large R/C dept., trains, miniatures and rockets.

THE HOBBY SHOP
2014 S. Oliver 682-9021

KENTUCKY — Hopkinsville

A full line model shop with an extensive selection of plastic kits & diorama, miniature, and gaming supplies. We cater to the serious hobbyist.

THE HOBBY SHOP
Pennyville Mall 886-5747

MASSACHUSETTS — Lowell

We specialize in plastic model kits and supplies from around the world. Special orders don't upset us! Hours Wed thru Fri 6-9pm. Sat 10am-6pm.

International Models Hobby Shop
277 Chelmsford St. 459-4154

MASSACHUSETTS — Worcester

"The Home of Hobbies since 1946." Plastic airplanes, ships, autos, paints, tools, & supplies. Complete line armor. MC & VISA. Daily 9:30-5:30. Wed 'til 8 pm.

HENRY'S HOBBY HOUSE, Inc.
34 Franklin St. 754-5604

MICHIGAN — Ann Arbor

Kits Galore-Airbrushes & Accessories. Special orders for those hard-to-find items. Mon-Fri 11 to 9, Sat 9:30 to 5:30.

RIDER'S HOBBY
115 W. Liberty St. 668-8950

MICHIGAN — Marquette

Plastic and wood models. Planes-cars-trucks-ships. Decals-glues-paints-tools.

HOBBY WORLD
124 S. Front St. 228-4098

LOCAL HOBBY SHOP DIRECTORY

TELL YOUR HOBBY RETAILER YOU SAW HIS AD IN FSM

MICHIGAN — Westland

Scale model trains, cars, planes, ships, armor and accessories. Scratch builders supplies, paints, airbrushes & brushes, books, games & magazines. Mon-Fri 10-6. Fri til 7. Sat 10-5.

DAVE'S HOBBY & TV

29026 Warren Road 422-4464

MISSISSIPPI — Jackson

One of the South's finest selections of basic and hard to get imports. Books, tools, airbrushes, styrene & games. Open Mon through Fri. 10-6. Sat. 10-5.

CREATIVE CRAFTS & HOBBIES

Maywood Mart 982-2661

MISSOURI — Kansas City

1000's of military & fantasy miniatures. 100's of fantasy & military games. Models, MicroScale, books, accessories.

YANKEE DOODLE GAME & HOBBY

6831 Longview Rd. 761-1113

MISSOURI — St. Louis

Everything in hobbies. MasterCard, Visa, and checks welcome. Two convenient locations.

ASTRO HOBBY HOUSE COMPANY

1245 S. Laclede Station Rd. 961-7093

MISSOURI — St. Louis

Specialists in military miniatures. 15mm, 25mm and up. Plastic kits. Simulation games.

EPIC GALLERY, LTD.

68 Village Sq. Sho. Ctr. 731-5610

NEBRASKA — Bellevue

Just outside the Strategic Air Command Museum means plastic models are our specialty. Worth a visit.

AIR-CRAFT HOBBIES

706 W. Mission 291-6630

NEVADA — Reno

Planes, trains, boats, cars, crafts, games, books, tools, and supplies. Open daily 10-6. Fri 10-9. Closed Sunday.

HIGH SIERRA MODELS

953 W. Moana Lane 825-9098

NEW JERSEY — Cranford

One of the best little hobby shops in Jersey. Plastic kits, wooden ships, HO & N trains. Paints, books, fabulous displays.

DICK'S HOBBYLAND

16 North Union Ave. 272-7660

NEW JERSEY — Old Bridge

Role playing games, books, magazines, hobby kits from around the world. Military and fantasy miniatures. HO trains and paints.

ADVENTURE HOBBIES

596 Englishtown Rd., near Rt 18 251-2030

NEW JERSEY — Pennsauken

The latest in plastic military kits, books, magazines, paints and decals. We have automobile and ship kits.

TED'S ENGINE HOUSE

6307 Westfield 662-0222

NEW JERSEY — Red Bank

One of New Jersey's most complete hobby centers. Open Mon-Wed 10-6. Thur & Fri 10-8. Sat 10-5. Sun 12-4.

HOBBYMASTERS

62 White Street 842-6020

NEW YORK — Bay Shore

Complete selection of models; military, airplanes, cars. Building supplies, paints, and tools.

SOUTH SHORE HOBBIES

577 E. Main St. 665-7707

NEW YORK — Brooklyn

Complete line of military kits, both domestic and imported. Paint and accessories. Mon, Thur, Fri 10:30 a.m.-8:00 p.m., Tue, Wed, Sat 10:30 a.m.-6:00 p.m.

WALT'S HOBBY SHOP, Inc.

7909 5th Ave. 745-4991

NEW YORK — Floral Park

Plastic model kits, hardware, tools. Complete stock HO, N, Z supplies. Märklin, Bachmann, Life-Like, Falter, Tyco, etc. sets. RTR, accessories. Mon-Fri 11-6:30. Sat 11-30. Sun 11-5.

JERICHO HOBBY & TRAIN CENTER

144 Jericho Tpk. 352-5067

NEW YORK — Hicksville

One of Long Island's fastest growing model shops. Military airplanes, cars, RR building supplies, paints, decals and tools. Open 7 days. Mon-Fri 10-9. Sat 10-6. Sun 10-4.

RIGHT TRACK HOBBIES

79 Broadway 433-0123

NEW YORK — Huntington

In an independant review of hobby shops, Newsday described the Caboose: "An absolute dream. Jampacked with goodies." Daily 9:30-6. Fri. to 8. Sun. by appointment.

THE CABOOSE, INC.

208 Wall Street 427-8288

NEW YORK — Kingston

Full service hobby shop. Balsa, Plastruct, miniature lumber and building supplies. Open Mon-Thur 10-6. Fri 10-9. Sat 10-5. Closed Sunday.

J AND J's HOBBIES, INC.

785 Broadway 338-7174

NEW YORK — Massapequa

Waldron, Compucolor, VacuForms, Aeroclub, Aoshima, Esci, Fujitama, Imai, L.S. Nitto, Otaki, Nichimo, Heller, Tamiya, Hasegawa, etc. Magazines, decals, Paasche, slides & postcards.

MODEL HEADQUARTERS

1000 Park Blvd. 541-4235

NEW YORK — Middletown

Model maker & craftsman supplies & tools. Structural shapes in brass, alum., plastic, balsa & bass wood. Paint, decals, books. Hours Mon-Sat 10-5. Thur & Fri to 7pm.

AREA MODEL TRAINS, INC.

15 West Main St. 343-4988

NEW YORK — NY (Chinatown)

Complete series of military, aircraft, automobiles, motorcycles, RC, rockets, battleships, tanks. Foreign import models plus paints, airbrushes, tools & accessories. Open 7 days 10-8.

DIORAMA MODEL SHOP

37 Catherine St. 619-5785

NEW YORK — NEW YORK

Plastic and wooden kits, rockets. We specialize in static and remote control ship models. Open Mon-Sat 9-7. Sun 11-5. Closed Sundays June, July & August.

JAN'S HOBBY SHOP

1431A York Ave. 861-5075

NEW YORK — Plattsburgh

HO and N scale trains and accessories. R/C planes, boats, plastic, military, etc. Open 10-6 daily. Friday until 8. Closed Sunday.

PLATTSBURGH HOBBIES

22 Oak Street 561-0374

NEW YORK — Yonkers

Plastic military model kits, scratchbuilding & diorama supplies, metal figures, airbrushes, decals, how-to books, HO trains, D&D figures. Mon. 3-8, Tues.-Fri. 10-8, Sat. 10-6, Sun. 1-5.

ED'S HOBBY SHOP

847 McLean Ave. 237-1649

OHIO — Canton

Trains, N, HO, O-27, LGB. New and used. Games & tools. One of the best plastic selections in the area.

FALCON HOBBIES

1410 Whipple Ave. NW 477-9904

OHIO — Cleveland

Airplanes, boats, RC, rockets, plastic kits, trains, books, tools, wargames. Mon-Fri 10-8:30. Tue-Wed-Thur-Sat 10-5.

NATIONAL HOBBY, INC.

5238 Ridge Road 749-2450

OHIO — Cleveland (Lakewood)

Large selection of aviation and military books and magazines, general hobbies. Open 7 days.

WINGS HOBBY SHOP

17112 Detroit Ave. 221-5383

OHIO — Columbus

All scales of imported and domestic aircraft, armor and miniatures. Decals, books, paints. 12-9 daily, 12-5 Sunday

STRETE HOBBIES

3655 Sullivant Ave. 279-6959

OHIO — Mansfield

Plastic military model kits, military medals, books, coins, military miniatures, D & D, wargames and hobby supplies. Mon-Fri 11 a.m.-6 p.m. Sat 12-6 p.m.

THE PANZER HUT

1345 Park Ave., W. 529-4339

OHIO — North Canton

Great selection of domestic & imported kits, how-to books, airbrushes, tools, paint, wood & glue. HO & N trains, rockets, games. R/C specialists. Hobby consultants. Special orders.

MODELER'S HAVEN

4255 Portage N.W. 499-6000

OHIO — Oak Harbor

Plastic & wood kits, scratchbuilding and diorama supplies. Tools and accessories. Personalized and friendly service.

OAK HARBOR HOBBIES

136 W. Water St. 898-1300

PENNSYLVANIA — Allentown

Collector's corner; military figures, the latest in armor & aircraft kits. War gaming, fantasies. Complete line of paints.

ROSEMONT HOBBY SHOP

Trexler Mall 398-0210

PENNSYLVANIA — Erie

Plastic kits, books, games, railroads. Metal figures, military & fantasy. Cockpit details, scratchbuilding & diorama materials & details. Open Mon-Fri 11-8. Sat 9-5.

PENN STATION MODEL SHOP

3435 West Lake Rd. 833-5423

PENNSYLVANIA — Philadelphia

Quality models, plastic & wood, scratch building supplies, paints, tools, trains, dollhouses, miniatures.

MANAYUNK HOBBIES

4303 Main St. 482-1691

PENNSYLVANIA — West Chester

Large selection of plastic kits, Waldron, Humbrol, Microscale. Full line of diorama materials, collector kits, tools and books.

BRANDYWINE HOBBIES

1502 West Chester Pike 696-9049

RHODE ISLAND — Pawtucket

All types of model kits, domestic & imported, old & new, for all interests; plus books, paints, magazines, tools and supplies. Open Mon-Fri 4 p.m.-8 p.m. Sat 10 a.m.-6 p.m.

PARENT HOBBIES

270 West Ave. 722-2398

SOUTH CAROLINA — Charleston

Variety of plastic, wood & die cast kits. War games, books, paints and tools. Open 8:30-6 daily.

CHARLESTON HOBBIES

1011 St. Andrews Blvd. 763-1429

SOUTH CAROLINA — Columbia

One of the Southeast's most complete hobby shops. Plastic kits, ships, wargames, model railroad, tools, rockets, books and much more. Daily 10-6. Fri 10-8.

THE DUTCH DOOR HOBBY SHOP

1625 1/2 Broad River Road 798-3773

TENNESSEE — Chattanooga

Hobby supplies for the craftsman in modeling autos, trucks, planes, armor, figures. Come see our customers' award winning displays. Open Mon.-Sat. 10 a.m.-9 p.m., Sun. 1-5 p.m.

CHATTANOOGA HOBBY CENTER

5425 Highway 153 North 875-8231

TEXAS — Abilene

For just about the best scale modeling and models. Monthly meetings. Open 9-5:30 Monday through Saturday.

MAKER'S HOBBIES

715 Grape Street 673-3291

TEXAS — Arlington-D/FW Metroplex

Kits-tools-details-wood-plastic Books-scenics-paints-R/C-D/D HO, N railroad layouts Mon-Fri 10-8. Sat 10-6. We are modelers.

THE HOBBY HUB

903A Pioneer Pkwy W. 265-8101

TEXAS — Austin

Our specialty is scale modeling. Wide selection of domestic and foreign kits, paints, tools, books and supplies.

KING'S HOBBY SHOP

8810 Lamar 836-7388

TEXAS — Denton

Large selection of airliner kits & decals. Vacuum and plastic models. Scale R/C kits and supplies. Monthly specials.

AIRPLANES, ETC.

718D Hercules 382-0950

TEXAS — El Paso

Largest selection of aircraft and military models in west Texas. Also: Paints, books, Microscale decals and finishing products for modeling. Expert advice. 10 to 6:30 Mon.-Sat.

HAL'S HOBBY SHOP, INC.

No. 57 Sunrise Ctr. 755-1914

TEXAS — Irving (Dallas Area)

Aviation books, profiles, magazines, imported plastic kits. HO, N scale trains, FAOW, R/C, U/C planes and cars. Mon 1-7. Tue-Sat 9:30-7.

M-A-L HOBBY SHOP

108 S. Lee St. 438-9233

TEXAS — Plainview

One of the finest selections of plastic kits in the Panhandle and South Plains. Aircraft, ships, military models, cars & trucks, paints & supplies. Open Mon-Fri 3-7. Sat 10-6.

1st CAV. MODEL HOBBY SHOP

913 Columbia 293-9707

VIRGINIA — Alexandria

Only aviation kits and models. Plastic, vac-form, balsa & out of production items. Open 7 days a week.

THE NOSTALGIC AVIATOR

1215 King Street 684-5118

VIRGINIA — Virginia Beach

A full service hobby shop Open 10-8, 10-6 Wed. & Sat.

LANDING STRIP HOBBIES

1043-45 Providence Sq. 467-2936

VIRGINIA — Virginia Beach

Specializing in Lionel, HO, N trains and accessories. Repair service available. Complete hobby & craft store. Daily 10-8.

PEMBROKE STATION

4576-8 Pembroke Mall 490-2912

WASHINGTON — Bellevue

One of Seattle's finest shops for the fine scale modeler. Open Mon-Tue 10-8. Fri & Sat 10-midnight. Sun noon-5.

THE TRIPLE ALLIANCE

10328 Main Street 453-8939

WASHINGTON — Bremerton

Old kit corner; dioramas specialist. Armor, aircraft, ships, figures and modeling supplies.

THE EAGLE SHOP

107 Washington Ave. 479-4113

WASHINGTON — Seattle

Scale model ships, trains, planes, tanks, military & wargaming miniatures, books, tools, decals, etc. Mon, Wed, Fri 12:30-6:00; Tue, Thur 12:30-8:00; Sat 10:00-6:00.

American Eagles Inc. Military Hobbies

8556-58 Greenwood N. 782-8448

WEST VIRGINIA — Nitro

The special shop for special people. All brands of plastic kits, all scales. A full line of parts for the perfectionist. Complete hobby & craft center. Open Mon-Fri 10-5:30. Sat 10-5.

NITRO HOBBY & CRAFT CENTER

21st Street 755-4304

WISCONSIN — Green Bay

Tools, paints and adhesives designed for the modeler. Kits covering all scales and types. Hard to find and special imports. Open Mon-Thur 10-5:30. Fri 10-8. Sat 10-4:30.

RIVER CITY HOBBIES

500 E. Walnut 432-5835

WISCONSIN — Madison

One of the Midwest's most complete hobby shops. Tools, plastic kits, wargames, model railroad, miniatures. Hours: 9-9 Mon & Fri, 9-6 Tue, Wed, Thur, 9-5:30 Sat, 12-5 Sun.

MIDVALE HOBBY SHOP

505 S. Midvale Blvd. 238-2233

AUSTRALIA — North Territory, Darwin

Large range of plastic model kits. Roaddecals. R/C aircraft, boats & cars. Model railroad supplies, games.

Darwin Hobby Shop Centre, Pty., Ltd.

Shop 10, Hibiscus Shop. Village 818404

Advertisers! Put your sales message in front of a \$13 million* per year scale modeling market – in FSM!

More than 39,000 ready-to-buy scale modelers will see the ads in this issue!

For information on
advertising, call or write:

* Based on the FSM reader survey.

FINESCALE MODELER

Fred Hamilton
Advertising Sales Manager
FINESCALE MODELER
1027 N. 7th Street
Milwaukee, WI 53233
Call collect at: 414-272-2060

INDEX TO ADVERTISERS

WE BELIEVE that our readers are as important as our advertisers; therefore, we try to handle all readers' complaints promptly and carefully. If, within a reasonable length of time, you do not receive your merchandise or a satisfactory reply from an advertiser, please write to us. In your letter please detail exactly what you ordered and the amount of money you sent. We will then forward your complaint to the advertiser for action. If no action is ultimately obtained, we will refuse to accept further advertising from him. Address complaints to: FineScale Modeler, 1027 N. Seventh St., Milwaukee, WI 53233.

A	
A P C Hobbies	66c
A T P, Inc.	27
Aeolus Publishing Limited	10c
Aero Publishers, Inc.	15
Aero Research	36
Alnavco, Inc.	26
Armor in Detail	66c
Arrow Hobbies	10f
Atlanta Airbrush	66f
Auto World	12
Aviation AV Library	14
B	
Badger Air Brush	65
Bare Metal Foil Co.	69
Battle Hobbies	15
Biggen Hill Publishing	4
Binks Manufacturing Company	12
C	
Cactus Air Force	8
Canadian Float Plane	15
Castolite	52d
Charleston Hobbies	43
Clover House	9
Combat Models	66b
Combat Series	43
Creations Unlimited	66e
Cush	8
D	
D & J Hobby & Craft	66d
Densa Fine Art	66d
Des Plaines Hobbies	36
Discount Hobby Center	48
Dunbar Miniatures	46

E	
Empire-Pacific Ltd.	2
Evergreen Scale Models	4
F	
FineScale Modeler	11, 17, 52, 53, 73
1st Armored Model Supply Co	10d
Floquil-Polly S Corp.	34
Paul Freiler's Historical Models	44
A. J. Fricko Co.	4
G	
Grandt Line Products	68
Great Planes Models	66c
Arthur S. Green	66c
H	
Harold's Place	46
Heritage Ship Builders	66b
Historical Hobbies	14
Hobbyland	5
Hobby House	66a
Hugh's Aviation Prints	66c
I	
IPMS/USA	66a
I/R Miniatures	44
Imported Specialties	26
International Historic Films	66b
Island Model Craft Supply	27
K	
Kalmbach - Books	67, 74
Kalmbach - FineScale Modeler	11, 17, 52, 53, 73
Kit Collectors Clearing House	9
Krazy Glue	37
L	
Lencraft	10d
Little Generals	10d
M	
Marco Polo Imports	8, 53, 70
Mascot	10e
Meta Models	69
Metalizer Products	69
Micro Mark	60, 61
Mikorian Mercantile, Inc.	10a
Mill Slides	10e
Miniature Cars	66e
Brian K. Mitchell	66e
Mitchell Products	16
Model Expo	45
Model Expo Publications	66c
Model Rectifier	76
The Model Shoppe	4

N	
Modelmania	10b
NF Video	5
Northeastern Scale Models	66e
NorthWest Short Line	16
Nova Models	66e
O	
The Old Guard, Inc.	62
Ora Electronics	12
P	
Plastic Military Models	46
The Plastic Place	10b
Polk's Model Craft Hobbies	34
Pony Toy Go-Round	65
Q	
The Quartermaster	66a
R	
R E H Distributing Co.	10c
Rareplane Detective	10e
Repla-Tech International	10b
The Rock Quarry	64
Riverside Hobbies	64
Rosemont Hobby Shop	10a
Ruelle's	66d
S	
San Antonio Hobby Shop	62
Scale Aircraft Modelling	63
Sherrill Studio	4
Sky Books International	7
The Spare Time Shop	4
Standard Bearer Miniatures	9
Strete Hobbies	10f
T	
Taubman Plan Service	36
Testors	75
Twentieth Century Imports	66
V	
Victoria Products	5
Vintage Castings	10c
W	
War Eagle	68
War & Pieces	66a
Warren Tool Co.	9
Warwinds International	53
White Eagle	10f
Williams Brothers	66b
WWI Aero	16
X	
X-Acto	64

These books — from the publishers of FINESCALE MODELER — will answer your scale modeling questions!

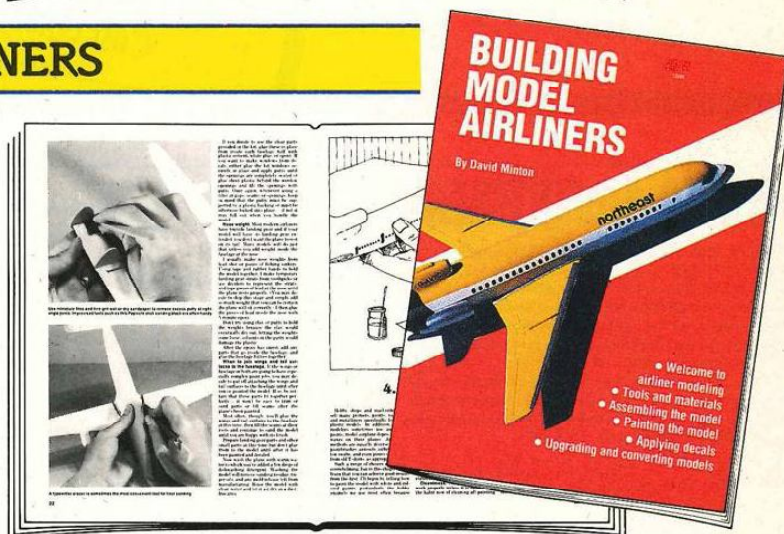
HOW TO PHOTOGRAPH SCALE MODELS

Here's your complete how-to-do-it guide to photographing scale models! In 64 colorful pages, you'll learn proven techniques for photographing all types of models, in a variety of settings. Expert authors Sheperd Paine and Lane Stewart take you through the basics — from selecting a camera to advice on composition — then help you master advanced photographic techniques. \$8.95



BUILDING MODEL AIRLINERS

Author David Minton shows you how to build accurate, colorful scale model airliners in this handy book. You'll learn basic and advanced techniques for assembling, painting, and decaling plastic airliner kits. You'll also discover where to obtain and how to use specialized airliner modeling products. In 48 well-illustrated pages, this is your concise yet complete guide to airliner modeling. \$6.95



Buy these books at your hobby shop or order direct today!

DEPT. 3871, KALMBACH BOOKS, 1027 N. Seventh St., Milwaukee, WI 53233

QUANTITY	TITLE	PRICE
—	Building Plastic Models	\$4.75
—	Famous Spaceships of Fact and Fantasy	\$8.50
—	Hints and Tips for Plastic Modeling	\$3.95
—	How to Build Dioramas	\$8.95
—	How to Build Plastic Ship Models	\$6.25
—	Modeling Tanks and Military Vehicles	\$8.95
—	Building and Improving Vacuum-Formed Model Aircraft	\$6.95
—	World War Two Jet Fighters	\$8.50
—	How to Photograph Scale Models	\$8.95
—	Building Model Airliners	\$6.95

Subtotal _____

Please send me the books I've marked.

- ☐ My check is enclosed
☐ This is a credit card purchase (see below)
☐ Check here and enclose \$1.25 to receive your copy of the Kalmbach Hobby Catalog. (Price refunded on next order).

Subtotal _____

Postage and handling: U. S. \$1; foreign \$1.50
Wisconsin residents add 5 per cent sales tax

TOTAL _____

If you don't wish to clip your magazine, copy the necessary information including department number on a separate sheet. Prices subject to change.
©1985 KALMBACH PUBLISHING CO.

Name _____

Street _____

City _____

State, Zip _____

☐ MASTERCARD

Charge to: ☐ VISA Exp. Date _____

Card Number _____

Signature _____

AC-130A HERCULES GUNSHIP

AC-130 Hercules Gunships are made by only two manufacturers: the Lockheed-Georgia Company and The Testor Corporation.

The Testor AC-130 Gunship is an exact 1/72 scale replica of Lockheed's famous airplane. With a wingspan of more than 22,"the model is large enough to accommodate the most precise detailing the art of plastic kit designing allows. All panel lines are finely engraved for proper scale effect. Landing gear mechanisms, wheel wells, and

cockpit appointments will please the most discriminating model builder. What's more, interior cabin details have been included for display through the hinged, loading-ramp door. The Testor AC-130 is impressive internally and externally.

High-powered weapons systems distinguish the Gunship from its civilian counterpart. Armed with 40mm Bofors cannons, 20mm and 7.62mm Vulcan "Gatling" mini-guns, Low Light Level TV, AN/APQ-150 radar, and an Infrared Detector, the AC-130 is among the most potent and effective weapons in the skies. The Testor kit includes this equipment.

The AC-130 is but one example of the many fine subjects in the Testor collection of plastic models. Aircraft, military vehicles, and classic automobiles—crafted by the world's top manufacturers—all equal the standards of the Gunship. Each is authentic—no detail is overlooked.



Testor plastic model kits and Model Master professional finishing materials, including Federal Standard paints, natural-fiber brushes, and tools, are available through your local hobby dealer.



691/Lockheed AC-130A Hercules Gunship (1/72)
Wing Span: 22 1/16" (56 cm)

An
APM
Company

WE'VE CAPTURED A LEGEND IN ITS OWN TIME.

**Only MRC-Tamiya recreates the U.S.S. New Jersey
in all its awesome detail... 1/350 scale.**

The legend lives on.

Built in 1943, the U.S.S. Battleship BB-62 New Jersey was a warship destined for greatness. Fitted with huge 16" guns, she posed a constant threat to enemy ships and shore installations during WWII. Later she saw extensive action in the Korean War and Vietnam conflict, serving admirably until being placed in mothballs in 1972.

Two years ago, she was refitted and sent once more to serve, this time, making history in Lebanon... and so the legend of the New Jersey continues.

If you're going to build the New Jersey, this is the one to build.

More than 30" in length, MRC-Tamiya's 1/350 scale kit is an outstanding tribute to this magnificent battlewagon. Everything that should be there is... in meticulous detail.

Examine the complex antenna and radar array. It's complete. Precise... seemingly ready to receive. Scan the superstructure. Perfection from fore to aft. Then there's the incredible 16" guns... we've molded them with painstaking accuracy and made them rotatable too. We didn't stop there.

You'll build the New Jersey's Tomahawk Cruise missiles, Harpoon anti-ship missiles and Vulcan anti-air attack system. And when you're done, you'll have an exquisite model... and own complete satisfaction. Nothing has been overlooked. If it's on the New Jersey, it's here. Even the ship's two Sea Hawk helicopters require assembly, as well as the safety fences surrounding each chopper.

We've captured a legend in 1/350 scale... and with it we've brought ship modeling to a new level of excellence. Ask your hobby dealer and capture the thrill for yourself.



Send \$4.00 for complete, color catalog
Encyclopedia of MRC-Tamiya Plastic Model Kits.

MRC   **TAMIYA**

Model Rectifier Corporation
2500 Woodbridge Ave., Edison, N.J. 08817